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SECOND ANNUAL REPORT
OF THE
FEDERAL BOARD
FOR
VOCATIONAL EDUCATION

1918



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FEDERAL BOARD FOR VOCATIONAL EDUCATION.

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LETTER OF TRANSMITTAL.

FEDERAL BOARD FOR VOCATIONAL EDUCATION,
Washington, D. C., December 1, 1918.

*To the President of the Senate and the Speaker of the House of
Representatives of the Sixty-fifth Congress:*

By direction of the Federal Board for Vocational Education, and
in accordance with section 18 of the act of Congress approved Feb-
ruary 23, 1917, I have the honor to submit the following report.

Respectfully,

C. A. PROSSER, *Director.*

REPORT OF THE FEDERAL BOARD FOR VOCATIONAL EDUCATION.

INTRODUCTORY STATEMENT.

On February 23, 1917, the vocational education act was approved by the President. On July 17 the personnel of the Federal Board was completed. The Board then was organized within the fiscal year ended June 30, 1918.

Since the act provides that an annual report shall be made to Congress on or before December 1, the Board submitted on December 1, 1917, a report of work done up to that date.

The act further requires that the annual report shall include the reports made by the State boards on the administration of the act by each State, and the expenditure of money allotted to each State.

This latter requirement makes it necessary for the Federal Board to construct its annual report on the basis of the fiscal year. Since it was possible to include only a portion of the work of a fiscal year in the first annual report, this, the second annual report, will cover the period of the fiscal year ended June 30, 1918, including therefore the period covered by the first annual report. The Board will hereafter annually submit a report for the fiscal year, July 1 to June 30, inclusive.

MEANING OF THE VOCATIONAL EDUCATION ACT.

DEVELOPMENT OF THE IDEA OF FEDERAL AID FOR EDUCATION.

The vocational education act is the culmination of an evolution in national appropriations for vocational education. National grants for education in America were made in the early part of the last century. These early grants were given to the States for no specific purpose, without restrictions, without administrative machinery, and without the establishment of safeguards in the expenditure of the money. As might have been expected, the funds, in part, were dissipated, and little, if any, results were gained. Beginning, however, with the Morrill Act of 1862, the Federal Government has, by a series of acts, the second Morrill Act, the Nelson amendment, the Hatch Act, the Adams Act, the Smith-Lever Act, and the vocational education act gradually found its way to a philosophy and policy in the use

of national money for vocational purposes—it might better be said for vocational educational purposes—since all of this money has been given for the stimulation and support of vocational training.

Each one of these acts has represented an advancement on the part of the National Government in dealing with the problem. Each act has included provisions which made the work more systematic and effective. The Morrill Act imposed but few conditions in the use of the money by the States. The Smith-Lever Act imposed many conditions. It is safe to say that the vocational education act is the most specific and exacting of all these enactments in its requirements upon the States in the use of Federal money.

In the sweep of almost a century since the early grants were made by the National Government, we have passed from the idea of the use of the Federal money for indefinite educational purposes to the use of Federal money for very specific educational purposes carefully defined in the statute. We have passed from the idea of no obligation on the part of the State in the expenditure of the Federal money to the conception of a solemn obligation on the part of the State to use the money in conformity with the requirements of the law making the appropriation; from the idea of no machinery, no system, and no organization to safeguard and administer the funds to the idea of a definite system, a thoroughgoing organization, and careful safeguards in order that the Federal money may be spent effectively for the purposes intended.

SPIRIT AND PURPOSE OF THE VOCATIONAL EDUCATION ACT.

The vocational education act provides a scheme of cooperation between the Federal Government and the States for the promotion of vocational education in the fields of agriculture, home economics, and industry. Under this act the Federal Government does not propose to undertake the organization and immediate direction of vocational training in the States, but does agree to make from year to year substantial financial contribution to its support. It undertakes to pay over to the States annually certain sums of money and to cooperate in fostering and promoting vocational education and the training of vocational teachers. The grants of Federal money are conditional and the acceptance of these grants imposes upon the States specific obligations to expend the money paid over to them in accordance with the provisions of the act. The State must show the kinds of vocational education for which it is proposed that the appropriations shall be used, and the kinds of schools and the equipment of the schools in which the instruction is to be given. The State must set up courses of study, methods of instruction, and qualifications of teachers who are to give such instruction.

With all the restrictions which have been placed around the expenditure of Federal funds as safeguards, the autonomy of the States has been entirely preserved by the following provisions:

1. The Federal Government deals with the work in the States only through an official State board created by the legislative machinery of the State.

2. The Federal Government deals with the State only in terms of standards and policies and not in terms of particular institutions or individuals. This means standards and policies rather than personalities.

3. The Federal Government deals with a State in terms of the conditions within that particular State and not in terms of the United States as a whole. This is possible through the provisions of the act which provide for standards but do not specify such standards in terms of equipment, courses of study, or other uniform requirements for the country at large. This cooperation of the Federal Government with the States in the promotion of vocational education is based upon four fundamental ideas:

- (1) That vocational education being essential to the national welfare, it is a function of the National Government to stimulate the States to undertake this new and needed form of service.
- (2) That Federal funds are necessary in order to equalize the burden of carrying on the work among the States.
- (3) That since the Federal Government is vitally interested in the success of vocational education, it should, so to speak, purchase a degree of participation in this work.
- (4) That only by creating such a relationship between the Federal and the State Governments can proper standards of educational efficiency be set up.

GENERAL PROVISIONS OF THE ACT.

Certain general provisions which may be regarded in a sense as restrictions apply to all the States and are in the nature of broad general policies affecting a Nation-wide system of education rather than the particular details of the schools or classes within a State. These general principles furnish a large part of the fundamental policy underlying the administration of the act and are as follows:

1. *All schools receiving Federal aid must be under public supervision or control.*—This means that privately conducted institutions over which the public does not have control must be supported by other than Federal funds. The Federal funds are public funds, and as such must be controlled by the public, the control within the State being through the State authorities, and the State authorities in turn being answerable to the Federal Government. This is an application of the well-recognized principle that where a dollar of public money goes there must also go public supervision to see that the public money is expended for the purpose and to the end for which it was appropriated.

2. *The controlling purpose of this education must be to fit for useful employment.*—The appropriations under the vocational education act are made for a specific purpose, namely, the promotion of vocational education. It is fair to assume that vocational education has as its controlling purpose to fit for useful employment. This safeguard prevents the use of Federal funds for any part of general education, even though that particular part may partake of the

nature and methods of instruction usually characterizing vocational education. To determine the controlling purpose several factors have to be considered—

- (a) The amount of time given to the instruction specifically related to the vocation.
- (b) The character of the instruction in so far as it is related to the field of production for which the pupils are being prepared.
- (c) The ability of the teachers as measured in terms of the vocation which they are teaching.
- (d) The plant and equipment as measured by conditions in the field of production for which particular field the pupils are being prepared.
- (e) The number of pupils entering the field of production for which they are prepared.
- (f) The efficiency of these people after entering the field.
- (g) The estimates placed upon the instruction by those already recognized as master workers in the field for which the pupils are being prepared.

3. *The instruction in these schools must be of less than college grade.*—As has already been noted, the Federal Government through other acts has made ample provision for the support of agricultural instruction of college grade. The vocational education act aims primarily to develop a system of vocational instruction for the adolescent youth of the country. This instruction is of less than college grade. With a provision to this effect it is impossible to use vocational education funds for the payment of salaries of teachers giving instruction supported from funds specifically designed for institutions of college grade. In other words, land-grant colleges may not use money from such sources as the Morrill fund and the Nelson fund, and from the agricultural fund under the vocational education act, to support the same class or classes.

With these safeguards, the fact that a class is maintained at least in part by Federal moneys granted to institutions as of college grade defines that institution as of college grade and therefore the instruction in it as of college grade. The only way in which a land-grant college may use Federal moneys under the vocational education act for the salaries of teachers is by making a separate organization of vocational classes of less than college grade.

4. *The instruction in these schools must be designed to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon a vocation.*—This provision is based upon the assumption that until a pupil has reached the age of 14 he is unable to determine what vocation he intends to follow. Furthermore, it is assumed that pupils below the age of 14 are not mature enough physically or mentally to profit from instruction of a vocational character. It is well recognized in the United States that the instruction of pupils under the age of 14 is properly of a general rather than a special character. Any instruction of a vocational nature is usually termed prevocational, and is more in the form of giving experience as a basis of intelligent choice of vocation than actual preparation for the vocation itself. In other words, the instruction contemplated by the vocational education act is for persons who have developed physically and mentally to an extent which will enable them to profit from instruction directed toward a vocation and which at the same time is of less than college grade.

5. *Every dollar of Federal funds must be matched by a dollar of State or local funds, or both.*—It is quite evident that this country is at the present time committed to the policy of giving State or Federal aid to an enterprise carried on in a community only upon condition that the enterprise shall also be sup-

ported in part by moneys representing some sacrifice on the part of the community itself. The principles here involved are as follows:

- (a) An individual or a community values most highly and cherishes most carefully the thing in which it has made an investment.
- (b) If an individual or a community really desires a thing enough, it will be willing to support financially the thing desired.
- (c) Federal or State aid is for the purpose of assisting a community and not making it a gift.

In other words, this provision of the law is carrying out to its logical conclusion the requirement that schools receiving Federal aid must be under public supervision or control, since this requirement adds that they must also be publicly supported.

6. *Reimbursement from the fund for salaries of teachers will be made to schools only for salaries of those qualified under the standards set up in the State plan and approved by the Federal Board.*—The essential of this requirement is that the money shall be expended only for the salaries of those who are to do the teaching or supervising. It is a well-recognized principle in education that the success of an educational enterprise depends more upon the teacher than upon any other single factor. While great stress is put upon proper plant and equipment, it is still necessary to recognize that there was a great deal of truth in what President Garfield said:

"Give me a log hut, with only a simple bench, Mark Hopkins on one end and I on the other, and you may have all the buildings, apparatus, and libraries without him."

Incidentally it is to be noted that when a fund is used solely for salaries of teachers, it is much easier to see that the money is properly spent than it would be if the fund might be used for other forms of maintenance, especially where many institutions in a State are to be considered.

NEW RELATIONSHIPS WITH THE STATES.

The relationship of the Federal Government to the States, as provided in the vocational education act, differs in a number of particulars from the relationship provided in the Morrill Act, the Nelson Act, the Hatch Act, and the Smith-Lever Act. In these four latter acts provision is made for the Federal Government to deal with a single institution in each State, with a few exceptions where two institutions were to be dealt with. It was necessary, therefore, in most States to deal with a single board of control for one institution and to expend the money in the affairs of one institution only.

The vocational education act, appropriating money for the support of vocational education of secondary grade in agriculture, home economics, and industry, must needs deal with many institutions of many different kinds located in many different places—teacher-training institutions, institutions training adults in evening school, part-time schools, day schools, schools located in rural communities, and institutions located in crowded cities. It was not possible for the Federal Government to deal with each one of these institutions directly, both because of the difficulty of the problem and because, traditionally, the elementary and secondary schools of the State are

operated by the State itself. Any attempt on the part of the Federal Government to deal with them would be an interference with the autonomy of the State in the management of its own affairs. It became necessary, therefore, to establish, through the vocational education act, one State board of control for the administration of the Federal funds within each commonwealth.

The establishment of a State board of control as a trustee of Federal moneys by the vocational education act makes it necessary that all schools, institutions, and classes within the State using the Federal money should deal not with the Federal Board for Vocational Education but with the State board charged with the duty and responsibility of expending these Federal funds in conformity with the act and a plan submitted by the State board and approved by the Federal Board.

Under the plan of administration set up by the act the Federal Board has no dealings directly with any institution inside the State. It does not say that a scheme of teacher training shall be carried on by this, that, or the other institution; it does not say that vocational instruction shall be given by this, that, or the other school; it can not say this, but it does pass upon the scheme for teacher training proposed by the State covering all such things as entrance requirements, length of course, content of course, method of instruction, and graduation requirements. It does pass upon the plan of vocational education proposed for the schools of a State, including plant and equipment, minimum for maintenance, course of study, and qualifications of teachers. When this plan has been approved it becomes the duty and responsibility of a State to select some institution or institutions inside the State to give the teacher training in conformity with the plan. It also becomes the duty and responsibility of the State board for vocational education to pass upon the question of whether or not certain schools have met the requirements of the act and the standards set up in the plan, and it is the duty of the Federal Board to see that the State board does carry out its plan of teacher training properly in the institution which has been selected and to see that the institution approved by the State board is in conformance with the plan proposed by the State.

The Federal Board must inspect the work of classes, schools, and institutions, but not as schools, classes, or institutions. It inspects the work as the work of the State board being carried on by such classes, schools, or institutions. Should the State board fail to do this it becomes the duty of the Federal Board to withhold the allotments of Federal money for the ensuing fiscal year. The State board, therefore, takes the responsibility upon its shoulders of not only selecting and approving the schools in which work is to be carried on but of seeing that these schools do carry on properly the work which they

have undertaken to do with the expectation of receiving reimbursement from Federal funds.

The Federal Board, therefore, is not concerned with controversies within a State as to what institutions or schools are chosen by the State board for carrying on the work. This matter rests entirely in the hands of the State board. The Federal Board is concerned only with the question of whether or not the State board is subletting the contract of vocational education and training vocational teachers as the work done according to the plan which it proposed and which the Federal Board approved.

At the same time it is the duty of both the State and the Federal Boards to see that the Federal moneys are used in the most effective way possible and for the purposes set forth in the act.

AGENCIES OF ADMINISTRATION.

The machinery established by the vocational education act is devised to secure effective cooperation in promoting vocational education. The law provides for the appointment by the President of a representative Federal Board for Vocational Education. The members of this Board are the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Labor, and the Commissioner of Education, together with three citizens who represent, respectively, the labor, the manufacturing and commercial, and the agricultural interests of the Nation.

On July 17, 1917, the Senate confirmed the following appointments by the President: Arthur E. Holder, a representative of labor, for three years; Charles E. Greathouse, a representative of the agricultural interests, for two years; and James P. Munroe, a representative of the manufacturing and commercial interests, for one year.

On July 21 the Board met and organized, electing David F. Houston, Secretary of Agriculture, as chairman; James P. Munroe, vice chairman; and P. P. Claxton, temporary secretary.

For purposes of administration and inspection under the vocational education act the Federal Board has divided the country into five sections or regions. In defining these regions the States are grouped as follows:

I. *North Atlantic*.—Maine, New Hampshire, New Jersey, Vermont, Massachusetts, Connecticut, Rhode Island, New York, Pennsylvania, Delaware, and Maryland. Headquarters in New York City.

II. *Southern*.—Virginia, North Carolina, South Carolina, Georgia, Florida, Tennessee, Mississippi, Alabama, Arkansas, Louisiana, and Texas. Headquarters in Atlanta, Ga.

III. *East Central*.—Michigan, Ohio, West Virginia, Indiana, Kentucky, Wisconsin, Illinois, Minnesota, Iowa, and Missouri. Headquarters in Indianapolis, Ind.

IV. *West Central*.—North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Montana, Wyoming, Colorado, and New Mexico. Headquarters in Kansas City, Mo.

V. *Pacific*.—Idaho, Utah, Arizona, Nevada, Washington, Oregon, and California. Headquarters in San Francisco, Cal.

Two agents of the Federal Board have been assigned to each region. One of these agents is for the field of agriculture and one for the field of trades and industries. An additional agent responsible for agricultural education for Negroes is stationed at the Atlanta office. The Federal agents for home economics and the special agent for trade and industrial education for girls and women are stationed in the Washington office. All these Federal agents are in addition to act as administrative representatives of the Federal Board in the field, to gather information regarding methods adopted by the several State boards for the administration of the act, and to inspect the work of the State boards in so far as it has to do with the requirements of the law, with the decisions and policies of the Federal Board, and with the approved plans for the States.

To provide agencies representing the State the act requires that State boards of not less than three members shall be designated or created by act of legislature. Each State board works in cooperation with the Federal Board in carrying out the provisions of the act. On or before December 31, 1917, each of the 48 States had through legislative enactment or the governor accepted the provisions of the act.

The scheme of cooperation contemplates that each State shall submit to the Federal Board a plan outlining the method by which it proposes to conduct its vocational education activities. These plans the Federal Board must examine and if it finds them to be in conformity with the spirit and purpose of the act it directs that the moneys apportioned to the various States be paid; thus, partly by the act itself, partly by the Federal Board, and partly by the State board in cooperation with the Federal Board, standards on vocational education are established which meet with the approval of both the State and Federal Governments.

On or before December 31, 1917, each of the 48 States had submitted plans which met with the approval of the Federal Board and each State had been certified to the Secretary of the Treasury for the allotment for the fiscal year ending June 30, 1918.

The staff appointed by the Federal Board for carrying out its policies relative to the administration of the vocational education

act consists of a director, who is the executive officer, a chief of the Division for Vocational Education, and four assistant directors, one for agricultural education, one for industrial education, one for home economics education, and one for commercial education, and regional and other agents reporting immediately to the assistant directors, a chief of the Division for Research and a staff of specialists and experts reporting immediately to him.

The two most important factors in the success of a State program for vocational education are supervision and teacher training. Proper provision for supervision and an adequate plan of teacher training in operation insure success.

The Federal Board is concerned with State administration and supervision because the State boards are the cooperating agencies with the Federal Board for the promotion of vocational education. The Federal and State boards become partners in carrying out the provisions of the act. The duties of each partner are specified in the law. The success of a partnership depends upon the ability of each member to carry out his part of the agreement. The provision which a State makes for administration and supervision is the best single index of the ability of the State to carry out its part of the agreement set up under the terms of the vocational education act.

The State board is concerned with State administration and supervision because the State has placed upon the board the responsibility of cooperating with the Federal Board in the promotion of vocational education in the State and because the State and Federal Governments have placed upon the State board the responsibility of disbursing Federal (and State) funds to schools which meet certain specific requirements and conditions. A State board can perform this double task of promotion and inspection only through representatives who are qualified by training and experience to encourage and stimulate, to advise and assist, to inspect and suggest, to approve and disapprove.

Both the Federal Board and State boards are vitally concerned with the question of so equipping the State board for vocational education as to enable it to discharge properly the responsibility placed upon it by the State legislature and Congress and to maintain its own prestige in the State. There has been much discussion to the effect that vocational education would be unable to maintain its standards and justify its existence if administered by the same board which administers the general education of a State. The sure way to prevent any such occurrence is to provide the board with a trained staff upon whose recommendations they can rely. Such a provision would also have a salutary influence upon the attitude of the State toward proper assistance to the board in the administration of general

education. In 32 States the State board of education has been designated as the State board for vocational education. In nine States there is no State board of education. With two exceptions the executive officer of the State board for vocational education is either the State superintendent of public instruction, the commissioner of education, State superintendent of schools, secretary of the State board of education, or the chairman of the State board of education.

No absolute standards for administration and supervision may be projected for the country as a whole; what is adequate for one State might be entirely inadequate for another. The provisions which a State makes will necessarily depend upon conditions in that State. It should be noted, however, that the number of schools in operation is not the sole mark of need of supervision, since the promotion side of supervision in some States may be more needed than the actual inspection of schools under way.

A complete system of State administration of vocational education involves the following duties:

1. Directional:

- (a) Outlining policies to present to the State board.
- (b) Preparing State plans (with assistance of specialists).
- (c) Directing the promotion of vocational education.
- (d) Medium between State and Federal boards.
- (e) Directing work of vocational staff.
- (f) Preparing forms for reports of vocational schools and teacher-training classes.
- (g) Recommendations to State boards regarding schools and classes for approval and reimbursement.
- (h) Bringing together all parties interested in vocational education to the support of a State program.
- (i) Educating the State as to the meaning of vocational education.

2. Supervisory:

A. Fields of supervision.

- (a) Agriculture.
- (b) Home economics.
- (c) Trades and industries.
- (d) Teacher training.

B. Duties within each field.

- (a) Assist the directive officer in special field.
- (b) Inspect schools.
- (c) Assist teachers in improving work.
- (d) Studying conditions of State in special line with a view to recommending establishment of schools or classes.
- (e) Assisting in establishment of schools or classes.
- (f) Preparing bulletins and other special literature.

A SUMMARY OF PROGRESS.

The first task which confronted the Board was that of organization. Approximately the first month was spent in these preliminaries in securing a director and a staff qualified to begin the execu-

tion of the duties prescribed by law. At the same time a series of conferences with the representatives of the States which had accepted or were about to accept the act were arranged for the last 10 days of August. These conferences were designed to serve the double purpose of clarifying in the minds of the Board the problems to be met and of inaugurating the kind of contact with the States, without which success would be impossible. The conferences are a matter of formal stenographic record. From the discussions around the table there were developed a series of memoranda outlining the requirements of the law itself, stating the preliminary policies of the Board, and setting forth the opinions of the legal adviser on points which required special interpretation.

Inasmuch as a new school year was about to begin, it was necessary to proceed as rapidly as possible to an examination of the plans proposed by the State boards for vocational education. Under the law, these plans must be approved by the Federal Board before Federal moneys can be paid out for the salaries of teachers and for the training of teachers in subjects prescribed by the statute. Before the 1st day of January, 1918, 48 States had accepted the law, either by specific provisions of the legislature or by act of a governor. The plans of all 48 States had been examined by the Board, approved, and the Board had certified to the Secretary of the Treasury that these States were entitled to receive the allotments for the year 1917-18 apportioned by the terms of the statute. Thus in four months a plan of vocational education was set up in each of the 48 States. A board in each State was in existence for the purpose of carrying out the provisions of the vocational education act and the plan agreed upon between that board and the Federal Board. This rapid organization of the country for the promotion of vocational education necessitated the passage of acts of acceptance in many of the States before any general policies were formulated by the Federal Board and before the States had an opportunity to study their needs. As a consequence some of the States have been handicapped by lack of funds for administration; others have been handicapped by lack of funds for matching Federal funds; and in various other ways the program for the promotion of vocational education in the States has been delayed until the State legislature met to remedy the shortcomings of the acceptance acts. Representatives of the Federal Board have met with representatives of the State board in many of the States to assist them in preparing adequate bills for the consideration of the State legislature. This is one of the pieces of work which is fundamental to the success of a national program of vocational education.

Not a small part of the time and energy of the staff of the Board has been expended in assisting the States to formulate and revise the

plans of cooperation between the various States and the Federal Board. With growing experience it has been possible to give material assistance to the States both in the content and the arrangement of the plan. Owing to the shortness of the time intervening between the organization of the Federal Board and the latest date upon which States could be certified to the Treasury, it was necessary for the staff of the Federal Board to do more in the way of formulating a working plan than will be necessary in the years to come when the States have had more experience in vocational education and when the State boards have been provided with larger and better trained staffs.

To aid the States in the establishment of vocational schools and classes, and to institute adequate instruction in agriculture, trades, and industries, commerce and commercial pursuits, and home economics, a series of studies and investigations have been undertaken by the Board. Bulletins have been prepared for the assistance and the guidance of the States. The Board has formulated a statement of principles and policies for the administration of the act. Through its agents the Board has assisted the States both in the promotion of a better understanding of the principles of vocational education within the States and in the establishment of concrete pieces of work along lines of vocational education.

Along with the gradual building up of the cooperative work with the States the Board has from time to time entered into working arrangements and cooperative agreements with various Government departments and private agencies. The relationships are varied, depending entirely upon the nature of the work undertaken and upon the facilities both of the Board and the cooperating agencies for carrying on the work.

The fact that the vocational education act was approved by the President less than two months before the entrance of the United States into the great war has naturally made cooperative work carried on by the Board deal very largely with problems connected with or arising out of the war. It was early apparent in this country that we were in need of vocationally trained men and women and our want of facilities for training men and women vocationally was readily apparent. The war furthermore disclosed a military and industrial shortage of trained workers and without doubt has stimulated the States to their response to the cooperation offered by the vocational education act.

Probably the most direct and effective piece of work the Board has done is the assistance in the organization of classes along technical and mechanical lines which look toward the preparation of men for Army occupations.

The movement for vocational education in general is progressing so rapidly that no complete account of the schemes that are being proposed and adopted can be given within a limited space. In addition to the passage by Congress of the vocational education act, there is to be recorded the acceptance by practically every State of the provisions of this law. At the same time many State systems of vocational education were established. In the majority of cases these schemes are integral parts of the State public-school system, and are maintained to a large extent by State funds, and supervised by the State educational authorities. This year for the first time teacher-training systems in agriculture, home economics, and industry have been established. These systems are in most instances financed by the States alone, but in the instance of approved work Federal aid will be forthcoming. The meeting in this way of the most important problem of the preparation of teachers marks a long step in the right direction. Again, through State and Federal aid, many new vocational schools have been established in small communities which, without such assistance, would be unable to bear the financial burdens thus necessarily imposed.

It is next to impossible at the present time to define specifically the progress in vocational education. Conditions arising out of the war have greatly stimulated the work, but at the same time many of the men who have been trained to carry on the work have been removed by the draft. There is presented, however, in this report a survey of the situation in so far as the Federal Board and its activities are concerned. As the facilities in the States develop it will undoubtedly be possible to secure more detailed information and present more comprehensively the development of vocational education State by State. From now on vocational education is a matter to which the energies of both State and Federal Governments will be directed. Its establishment means much for the defense as well as the prosperity of the people of the country. It means an immediate extension of our secondary public-school system so as to furnish a more practical education for all. It means, furthermore, that this extension will be carefully planned and ordered. It means an end to haphazard extension of vocational education. It means that a program can be agreed upon and can be developed progressively from year to year. The Federal Board then desires to have recorded from the beginning the conditions under which the work originated and the steps of progress from year to year.

The opening chapter of this report describes the general progress made by the Board in organizing its work. Succeeding chapters will show in detail the advancement made in the various activities of the Board in the administration of the vocational education act.

COOPERATION.

As a new commission it became necessary at the outset for the Federal Board to establish relations with other Government agencies in order to define its own place and function and properly to carry out its own duties under the law; to set up cooperation with State boards for vocational education as required by the vocational education act; and to enlist the interest and assistance of various agencies of a public or semipublic character in carrying out the provisions of the act.

Cordial relations and a clear understanding of duties and responsibilities have been established with the Government departments, particularly those whose work touches in any way the duties of the Board, such as the Department of Agriculture, the Department of Labor, the Department of Commerce, and the Department of the Interior.

Section 6 of the vocational education act makes it the duty of the Board to make or cause to have made studies, investigations, and reports, with particular reference to their use in aiding States in the establishment of vocational schools and classes, and in giving instruction in agriculture, trades and industries, commerce and commercial pursuits, and home economics. The Board is further authorized, when it deems it advisable, to have such studies made in cooperation with or through the Departments of Agriculture, Labor, and Commerce, or the Bureau of Education.

A number of studies were undertaken in cooperation with other departments previous to the close of the period covered by this report (June 30, 1918). One, on "The Home Project as a Phase of Vocational Agricultural Education," was prepared by a specialist in the States Relations Service, United States Department of Agriculture, under the direction of the Board cooperating with the Department of Agriculture, and was published in September, 1918.

Anticipating the great need for training for the field of foreign commerce the Board joined hands with the Bureau of Foreign and Domestic Commerce of the Department of Commerce in publications relating to this work. The first publication on foreign trade education was prepared by the Board and issued in November, 1918. A second publication, in the nature of a reading course in foreign trade, was prepared jointly by the Board and the Department of Commerce. This is now ready for printing by the department. The third in the series treats of foreign-trade documents for use in classes and was prepared by the Board, to be published by the Department of Commerce at an early date.

Under arrangements with the Child Welfare Division of the Department of Labor a Bulletin on Child Care and Child Welfare,

prepared by the division at the request of the Board, will soon be published.

Partly as a war measure, but more particularly for use in years to come, the Board has prepared a bulletin on "Feeding the Family." This bulletin contains the principles of economic use of food set up by the Department of Agriculture and the United States Food Administration, and deemed by them, and the Board, essential in peace as well as in war times.

At the request of many different agencies the Board determined to publish a series of bulletins on safety and hygiene, each devoted to the things in which workers employed in a definite trade group or industry should be instructed, in order to safeguard their lives and health and strength, as well as that of their coworkers. These bulletins are to be used in day, part-time, and evening classes. The following bulletins in the series have been planned:

Building trades, mining trades, woodworking trades, metal trades, shipbuilding trades, electrical trades, textile trades, clothing trades, printing trades, food-production trades, transportation.

Cooperation in the preparation of these bulletins has been established with the Bureau of Labor Statistics of the Department of Labor, the United States Employees' Compensation Commission, the American Museum of Safety, and the National Safety Council.

Attention is called here to the close and effective cooperation established between the Federal Board and 48 State boards for vocational education under the law. It will not be necessary to treat this here, as it has been fully presented elsewhere in this report.

The regional agent of the Federal Board for the trans-Mississippi zone began, in cooperation with the State boards of the mining cities for that region, a study of the need and possibilities of training mine workers through day, part-time, and evening classes, particularly the latter two, for the mining industry. The hearty approval which this has received at the hands of associations of mining engineers and mine operators promises a rapid development of vocational education in this line at an early date. The bulletin resulting from the investigation made will be published some time during the current year. As the result of a close understanding between the New York State Board for Vocational Education and the Federal Board for Vocational Education a study has been made of the employment of women in industry and of the training of women for industrial occupations of a kind not usually followed by women before the war. It is hoped through this study to arrive at a just picture of the extent and character of this problem and the possibilities of training women, in order that they may enter successfully new industrial occupations.

An arrangement was made with the National Retail Dry Goods Association by which their specialist on training for retail selling

in department stores was detailed to the Federal Board to prepare, with the assistance of its agents, a bulletin on "Training for Retail Salesmanship," which is now in print.

As a result of conferences with the Southern Cotton Manufacturers' Associations a study was undertaken by the Board of the need and possibilities of the training of textile workers in southern mills through part-time and evening classes, this to result in definite experiments in at least six Southern States. This work is under way.

Through its publications, the National Association of Manufacturers assisted the Federal Board in the dissemination of information regarding the use of Federal moneys in part-time and evening classes, by the States, and the United States Chamber of Commerce performed that same service not only regarding part-time and evening school instruction, but also concerning the need for training for the foreign trade and the plans of the Board for the publication of bulletins setting up a definite plan and content for such training.

WAR PROBLEMS.

Attention is called to the section describing the activities of the Federal Board in the training of conscripted men for mechanical and technical occupations in the Army. It will be impossible to list here the many points of contact between the Board and other governmental agencies in the pursuance of a war program of the administration. Certain things, however, stand out as notable. A call was made by the Federal Board on the State boards for vocational education throughout the country for the establishment of evening industrial classes in which conscripted men would be trained to meet the demands of Army occupations before entering the service and in which those employed in essential war industries might secure further training fitting them for the better discharge of their duties or for promotion to more responsible positions. To advance this work the Board made provision from the Federal moneys to pay one-half the salaries of the instructors engaged in this work. Many of the State boards of the country responded vigorously to this appeal, and the excellent work accomplished, as described in the chapter on war training, shows results which authenticate vocational education as necessary to success in war as it has been shown to be undoubtedly necessary for success and prosperity in peace.

Responding to the requests from different departments of the War Department, the Federal Board, as the result of practical studies and investigations, issued nine bulletins giving courses of instruction in mechanical and technical lines for men subject to the draft or assembled by the Army for training purposes. They were used by civilian schools throughout the country, subject to the draft, by special schools established by different branches of the War

Department, such as the Quartermaster's Division, the Signal Corps Land Division, the Signal Corps Aviation Service, the Ordnance Division, and the extensive schools established under the auspices of the Committee on Education and Special Training of the War Department. These bulletins were prepared at the request of the Army to meet very definite and critical needs. They were worked out in close consultation with the branch of the Army concerned. They were approved before publication. The demand for these bulletins for use was so great that at times the Board was unable to print the additional copies rapidly enough to supply the demand. A total of 200,000 copies was issued, and in some cases these bulletins went into the third edition.

Experience has already shown that these courses, worked out in definite short units, presenting, as they do, in print for the first time, an analysis of the different things in which men need to be trained in order to be effective in an occupation, have proven just as effective in meeting the needs for civilian workers as for those fitting for Army occupations.

In response to the request of the United States Shipping Board the Federal Board prepared a bulletin on Emergency Training in Shipbuilding. This bulletin has been used extensively by the Emergency Fleet Corporation in its training classes, by the Employment Service of the Department of Labor in recruiting men for shipyards, and by evening classes in maritime cities where shipyards are located for giving extension training to shipyard employees and fitting them to be better workers or for promotion to more responsible positions.

A representative of the Board has assisted the office of the Provost Marshal General in analyzing occupations in order to provide a working code to be used in special draft requisitions, calling men with desirable previous mechanical and technical experience directly into Army occupations or into classes fitting them for Army occupations. Likewise, a representative of the Board has served on the committee on prison labor and waste conservation of the War Industries Board and has assisted with the information in the hands of the Board in the formulation of projects to prevent waste of steel and paper and to conserve prison labor by using it as far as possible in essential war industries.

VOCATIONAL REHABILITATION OF DISABLED SOLDIERS AND SAILORS.

Representatives of the Board participated in various conferences called for the purpose of formulating a comprehensive plan of rehabilitation. Early in the war different departments and branches of the Government, as well as private organizations, began a study of the problem to make tentative plans to meet it.

To prevent confusion and the development of many separate and duplicating efforts the Surgeon General of the Army, at the suggestion of the Secretary of War, recently called together in conference representatives from the Departments of the Treasury, War, Navy, Interior, and Labor, the Federal Board for Vocational Education, the Public Health Service, the United States Employees' Compensation Commission, the Council of National Defense, the National Chamber of Commerce, the division for civilian relief of the Red Cross, the National Manufacturers' Association, and the American Federation of Labor to give full consideration to the problem and to formulate a definite and comprehensive plan which would provide a continuous process for the physical and mental restoration of disabled soldiers and sailors and their vocational rehabilitation and return to civil employment.

In order to be of the largest assistance this conference terminated its labors by the adoption of a tentative bill embodying the principles and policies of which the conference approved. Practically all these principles are embodied in the vocational rehabilitation act approved June 27, 1918.

The bill in final form committed the administration of the vocational rehabilitation of disabled soldiers and sailors, after their discharge from the military or naval service, into the hands of the Federal Board for Vocational Education.

While this bill was pending in Congress the Federal Board began the study of the problems involved in order to prepare for the proper discharge of the work should it be committed to the care of the Board. By cooperation with the Red Cross Institute for Crippled and Disabled Men of New York a party of 15 was chosen by the Board, and trained under the auspices and at the expense of the institute, the Federal Board having no funds for this purpose. This was done in order that there might be persons available in this country with some knowledge of the problem at the outset of the operation of the law, should it be passed. In connection with the training work the group was sent to Canada for four of the six weeks in which instruction was given, and a scheme of inspection, conference, and training was carried on in cooperation with the institute and invalided soldiers' commission of Canada. This training program was approved by the Federal Board before it was put into effect.

The Board desires here to express its appreciation of the courtesies and help of the Canadian commission and for the generous and valuable assistance rendered by the Red Cross Institute. Later a bulletin prepared by the institute, by Mr. Douglas McMurtrie, under the auspices of the institute, on the "Evolution of National Systems of Vocational Reeducation for Disabled Soldiers and Sailors," was published by the Federal Board as Bulletin No. 15.

Various conferences were held before the 1st of July, or arranged for before the 1st of July, in preparing for the vocational rehabilitation work under the auspices of the Board.

An arrangement was put on foot to utilize the existing facilities of the country in the training of disabled men along professional, agricultural, commercial, industrial, and trade lines, and to secure the cooperation of various agencies in the proper care and placement of the disabled men, and to secure the welfare of their families while they were in training. At the time of this writing the armistice has been signed and the Nation is turning its thoughts even more earnestly toward the sacred duty and responsibility resting upon it of rehabilitating men as far as it is humanly possible, physically and mentally, and of training and placing them so that they may return to civilian life as successful, useful, and happy members of society.

WAR TRAINING.

Although organized to encourage and aid in providing vocational education for civilians under peace conditions, the Federal Board, like every agency, governmental and other, found itself confronted with emergency war conditions and gave early consideration to its duties and opportunities for service in a national emergency. The Board emphasized from the beginning that any service it could render must be in accordance with the provisions of the vocational education law, and for the most part through State boards for vocational education.

Early after its organization the Federal Board became impressed with the great dependence of an army's fighting strength upon men trained as mechanics and in the skillful use and repair of the intricate mechanisms used in modern warfare.

During the months immediately following its organization it was very difficult to obtain any conclusive figures as to the number of mechanics needed or the number likely to be furnished through the selective draft, but by October, 1917, it became clear that an Army of a million and a half men, divided as then proposed, the corps services would require at least 200,000 mechanics in excess of those obtainable through the draft, enlistment, and induction.

As a result of preliminary investigations, the Board came to the conclusion that, in accordance with the mobilization plans as developed between June, 1917, and October, 1917, a very large number of conscripted men who would later be called for Army service could be given training in evening classes in a great variety of occupations which would be needed in Army service. The Board sought some means whereby the training resources of the country could be utilized for that purpose, and, after many conferences with Army officers

with a view to ascertaining the needs of the Army for men trained as mechanics, worked out a plan which, in cooperation with State departments of vocational education, could be legally aided financially through funds appropriated by the vocational education act.

The greatest needs discovered by the Board through its official contacts were for men in the following Army occupations:

Radio operators and repair men.

Automobile drivers and repair men.

Gas engine repair men.

General machine repair men.

Airplane repair men. .

The Board, at the request of Army officers, immediately undertook, through its research department, to study the exact occupational demands of the corps services, both as to numbers needed and qualifications necessary, and to organize courses of study by which men could be trained and prepared for service. The Board regarded the development of the evening classes as highly important for the following reasons:

(a) By proper admission requirements to classes men could be secured who had the proper civilian experience and knowledge on which to build.

(b) Productive industry would be disturbed less than by any other method of training, because men could take training fitting them for Army service in selected occupations prior to leaving home at the same time they were working at their regular occupations in civilian life and supporting themselves.

(c) Federal funds being available for aiding and assisting in this work, and an adequate scheme for proper supervision already developed under the provisions of the vocational education act, properly organized classes would not duplicate any existing training methods and would not set up an expensive method for maintenance of classes, support or travel of men, or expense for new equipment.

In November the Board received a copy of the following letter from The Adjutant General:

From: The Adjutant General of the Army.

To: The commanding generals of all departments and the chiefs of bureaus.

Subject: Utilization of the educational facilities in the United States.

1. The Secretary of War directs that you be informed as follows:

(a) The Federal Board for Vocational Education, authorized by act of Congress February 25, 1917, of which Dr. C. A. Prosser is director, is now organized and is in close cooperation with the vocational schools of the country. This Board is prepared to institute a comprehensive system of preliminary training of men of the second and subsequent drafts prior to their reporting at cantonments. It is proposed that in general the following would govern:

(b) All preliminary training would be voluntary, but would be limited to the actual needs of the Army as indicated by the several departments. Only conscripted men due for the second and subsequent drafts should be admitted

and only those physically fit. For this purpose preliminary physical examinations would be necessary for those not yet examined by an exemption board. Classes would be held for the most part in evenings, Saturday afternoons, and Sundays, thus allowing prospective drafted men to continue their regular occupation up to the last minute. Students should be dealt with individually, considering classes as a continuing process. Certificates of proficiency would be issued to men as they qualify. These certificates should be taken by the student to the cantonment as an evidence of the work done in preparing for an occupation which the Army needs. Equipment and instructors would be furnished by the schools cooperating in the scheme, except in the rare cases where Government aid might be desirable and necessary. There should be no tuition fee for the student.

(c) Records of numbers under training in any subject or locality as well as information as to name, residence, status as to draft call, cantonment to which they would be called, occupation for which they took training, other occupations in which they have had experience, etc., are being compiled by the Board and will be available for information of chiefs of bureaus.

(d) It is the desire of the Secretary of War that the chiefs of bureaus maintain close cooperation with this Board, furnishing such information as to number of men desired to be trained, necessary courses, etc. For this purpose the chiefs of bureaus will deal directly with Dr. Prosser.

On November 9 the Board took the following official action and authorized the director to secure the needed assistance for developing courses of study and, for making the necessary administrative arrangements with the War Department on the one hand and State boards for vocational education on the other, voted—

That whereas a national emergency exists requiring prompt training of conscripted men who have had the physical examination for mechanical and technical service in different branches of the Army, and whereas it appears that stimulation from the Federal Government is necessary in order to secure prompt and adequate action by the States and schools, Federal funds be available for instruction along mechanical and technical lines needed in the Army on the ground that these men have been conscripted and called into the service and that instruction preparing them either for more effective work in lines which they have been following or for promotion in the service is approved. The Federal Board authorizes the States to use Federal funds in this way but at the same time notifies them that this action is not to be regarded as a precedent in the interpretation of the expression "Supplemental to day employment" given in section 11 of the Smith-Hughes Act where evening-school work is defined. Furthermore, the use of Federal funds in training of conscripted men must of course be of less than college grade and will be subject to all the requirements of the Smith-Hughes Act and the policies of the Federal Board in every particular.

Acting on the authority conveyed in The Adjutant General's letter and the Board's vote, the staff of the Board entered upon an active propaganda to develop evening classes to which should be admitted conscripted men in draft classes 1 and 2 who showed that they had the background of previous experience and the ability necessary to undertake the work of the classes to be organized through the State departments of vocational education.

The work developed rapidly, and may be briefly summarized as follows:

1. Arrangements were made to employ a staff of special agents to prepare courses of study and to carry out the necessary administrative arrangements.

2. The Board immediately arranged with State departments of vocational education for the organization of evening classes in radio and buzzer work in accordance with an outline set forth in Bulletin 2. By January classes in which upward of 5,000 men had received instruction had been organized.

3. Representatives of the Board were in immediate and almost daily communication with the various branches of the Army for securing the data necessary for preparing courses of study and teaching outlines in those occupations for which adequate training could be given in the evening classes.

4. In cooperation with the office of the Provost Marshal General, seven questions covering the occupation and experience of drafted men were inserted in the selective-service questionnaire.

5. Authority was secured from the Provost Marshal General for duly accredited representatives of the Federal Board to examine the answers filed by registrants in regard to their occupational experience.

6. On December 19 the Board called a conference at Washington of State directors of vocational education to explain the situation in regard to Army needs and for the purpose of securing, on the basis of an adequate understanding, the cooperation of vocational schools and teachers. Twenty-four States were represented at that conference, and by subsequent correspondence the cooperation of practically all other State departments of vocational education was secured.

On January 10 the Board voted—

That the Federal Board approve the recommendation of the standing committee that the director be authorized to make appointments of executive officers of State boards for vocational education for purposes of war-training work, carried on under the auspices of the Federal Board, at a salary of \$1 per annum, when viséed by the vice chairman, subject to approval by the standing committee and Federal Board at the next regular meeting.

The following is a list of these special agents:

State.	Special agent.	Additional agent.
Alabama.....	Spright Dowell.....	Jas. L. Sibley.
Arizona.....	C. O. Case.....	I. Colodny.
Arkansas.....	J. C. Futrall.....	
California.....	E. R. Snyder.....	J. C. Beswick.
Colorado.....	C. G. Sargent.....	
Connecticut.....	F. J. Trinder.....	
Delaware.....	A. R. Spaid.....	
Florida.....	W. N. Sheats.....	
Georgia.....	M. L. Brittain.....	
Idaho.....	E. A. Bryan.....	
Illinois.....	F. G. Blair.....	E. A. Wreidt.
Indiana.....	Bert Morgan.....	
Iowa.....	A. M. Deyoe.....	
Kansas.....	W. D. Ross.....	
Kentucky.....	V. O. Gilbert.....	McHenry Rhodes.
Louisiana.....	T. H. Harris.....	
Maine.....	A. O. Thomas.....	
Maryland.....	M. B. Stephen.....	L. A. Emerson.
Massachusetts.....	Payson Smith.....	
Michigan.....	F. L. Keeler.....	W. H. French.
Minnesota.....	E. M. Phillips.....	G. A. McGarvey.
Mississippi.....	W. F. Bond.....	
Missouri.....	J. D. Elliot.....	

State.	Special agent.	Additional agent.
Montana.....	May Trumper.....	
Nebraska.....	C. A. Fulmer.....	
Nevada.....	J. E. Bray.....	
New Hampshire.....	E. W. Butterfield.....	G. H. Whitehead.
New Jersey.....	W. A. O'Leary.....	
New Mexico.....	J. H. Wagner.....	
New York.....	L. A. Wilson.....	
North Carolina.....	T. E. Browne.....	H. Satterfield.
North Dakota.....	E. R. Edwards.....	
Ohio.....	E. L. Heusch.....	
Oklahoma.....	S. M. Barrett.....	
Oregon.....	J. A. Churchill.....	
Pennsylvania.....	M. B. King.....	W. P. Loomis.
Rhode Island.....	W. E. Ranger.....	
South Carolina.....	J. E. Swearingen.....	
South Dakota.....	F. L. Shaw.....	
Tennessee.....	S. W. Sherrill.....	
Texas.....	W. F. Doughty.....	
Utah.....	F. W. Kirkham.....	
Vermont.....	M. B. Hillegas.....	Leon Beach.
Virginia.....	Harris Hart.....	
West Virginia.....	J. F. Marsh.....	W. G. Carpenter.
Washington.....	Mrs. J. C. Preston.....	
Wisconsin.....	John Callahan.....	Moncena Dunn.
Wyoming.....	J. R. Coxen.....	

The demand for mechanics exceeded the number that could be secured through the draft and through the authorized evening schools. This was particularly emphasized when the need for men in essential industries became apparent and when it became clear that the size of the Army would be increased.

On January 9, 1918, the Board, through the director, presented to the Secretary of War a tentative scheme for the training of mechanics and technicians for Army occupations, based on the results of its experience between August and December. This proposal may be briefly summarized as follows:

(a) The creation of a definite board or division of the United States Army, to be known as the educational board or division, to be made up of representatives from the Signal Corps, Quartermaster's Corps, Air Division Signal Corps, Engineering Corps, Ordnance Division, and Artillery, together with one or more officers representing the needs and demands of line services.

(b) The powers and duties of the Board to include training and distributing to the various services mechanics and technicians, and also men having qualifications for service for which there was not an adequate supply trained in civilian life, such as carrier-pigeon experts, oxy-acetylene welders, draftsmen, etc.

(c) The board to be equipped with authority and funds necessary for immediate action.

(d) An adequate, comprehensive scheme of training which should utilize throughout the country existing resources for training in mechanical lines, to include the resources of public trade and vocational schools, private trade and industrial schools, the resources of the agricultural and mechanical colleges, and the resources of commercial plants where necessary. This plan was based upon the proposal that men with some knowledge of mechanical trades should be selected from the available draft quotas and sent to appropriate institutions, under pay and subsistence, for intensive instruction in day classes under military control. The board proposed that the courses should be worked out by

the Federal Board for Vocational Education in cooperation with the Army branches concerned and approved by the proper Army authorities before being accepted as the basis of instruction. The Board tendered the services of its research department and all its other resources in carrying forward the proposed plan.

In furthering this program, on January 11 the Board called a conference of representatives of the technical colleges at which 47 institutions were represented. Subsequent correspondence with other institutions showed a willingness and ability on the part of such colleges to give intensive training in periods of four to eight weeks from May to November to a total of about 180,000 men. On January 17 the Board called a similar conference of private secondary technical schools, which showed available resources for training within the same period approximately 54,000 men.

On February 6, by order of the Secretary of War, there was created within the War Department a committee on education and special training, the functions of which were designated to be "to study the needs of the various branches of the service for skilled men and technicians; to determine how such needs shall be met, whether by selective draft, selective training in institutions, or otherwise; to secure the cooperation of the educational institutions of the country and to represent the War Department in its relations with such institutions; to administer such plan of special training in colleges and schools as may be adopted."

Under the above order the Secretary of War appointed a civilian advisory board. Included on the board was Mr. James P. Munroe, vice chairman of the Federal Board. By arrangements with the secretary of the committee, the Board proceeded, through its agents, to secure information supplementing that which it had previously obtained, and called to Washington for this purpose its entire force of regional agents in trade and industrial education, as well as special agents who had been appointed for work on the war-training program.

Beginning on February 18, with Army officers detailed for the purpose, agents of the Board made a survey in 15 centers extending from Boston to Manhattan, Kans., for the purpose of ascertaining the facilities and arrangements which could be made for beginning, on April 1, the training of about 10,000 men for mechanical occupations in the Army. On February 25 and 26 the agents returned with excellent reports concerning their inspections and these, together with the parallel reports of the military officers, were presented to the committee on education and training.

In establishing day schools for conscripted men it was the thought of the Federal Board that by a cooperative arrangement with the War Department and State departments of vocational education the

Federal Board would furnish courses of study, assist in supervising instruction and the administration of the plan. The committee on education and special training, however, felt that inasmuch as many private institutions would be involved, with which the Federal Board had no legal responsibilities, insuperable obstacles prevented effective working relations between the War Department, the Federal Board, State departments of vocational education, executives of colleges, and private trade and industrial secondary schools. Consequently, on March 20 the Federal Board withdrew all its proposals regarding administrative relations with the committee on education and special training. It continued the work already begun by arrangement with properly designated Army officials in preparing courses of study, and later released three of its special agents to serve in organizing Army training schools.

The Board has prepared and circulated nine bulletins containing war-emergency courses, which have become basic courses for the instruction of mechanics and technicians not only in the evening schools under its direction but also in corps training schools and schools under the directions of the War Department committee on education and special training. A total of 200,000 copies of these bulletins have been distributed throughout the country.

Bulletin No. 2. Training Conscripted Men for Service as Radio and Buzzer Operators in the United States Army (International Code).

Bulletin No. 4. Mechanical and Technical Training for Conscripted Men (Air Division, U. S. Signal Corps).

Bulletin No. 7. Emergency War Training for Motor-Truck Drivers and Chauffeurs.

Bulletin No. 8. Emergency War Training for Machine-Shop Occupations, Blacksmithing, Sheet-Metal Working, and Pipe Fitting.

Bulletin No. 9. Emergency War Training for Electricians, Telephone Repairmen, Linemen, and Cable Splicers.

Bulletin No. 10. Emergency War Training for Gas-Engine, Motor-Car, and Motor-Cycle Repairmen.

Bulletin No. 11. Emergency War Training for Oxy-Acetylene Welders.

Bulletin No. 12. Emergency War Training for Airplane Mechanics—Engine Repairmen, Woodworkers, Riggers, and Sheet-Metal Workers.

Bulletin No. 16. Emergency War Training for Radio Mechanics and Radio Operators.

The Board continued its efforts to secure the training of men in evening classes; new classes in increasing numbers were established, and many more enrolled in the classes. In March the Board sent four of its special agents for war training to confer with State directors of vocational education in the following States: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Tennessee, Maryland, West Virginia, Kentucky, Ohio, Indiana, Illinois, Wisconsin, Minnesota, Iowa,

Missouri, and Kansas. In addition, the regional agents for trade and industrial education, on their regular tours of duty, urged this type of training opportunities upon the attention of State directors. The Board kept all State directors continuously informed of developments regarding numbers of men needed and the occupations in which they were needed, the aim of the Board being to provide for mechanical work in corps service an immediate supply of suitably qualified men and to secure for the men induction into appropriate services.

By a system of reports and records devised by agents of the Board information was forwarded at frequent intervals to the War Service Exchange and to the committee on classification of personnel. By a system of card records each man trained in an evening class was given a statement of the work he had covered in the evening classes to present to the personnel officer at the camp or cantonment to which he was sent, and a duplicate was provided to file with the Board at Washington.

Some confusion in getting men assigned to Army service in the occupations for which they were trained was inevitable under the circumstances attending the rapid mobilization of what was, to this country, an unprecedented number of men. Arrangements were made by the Signal Corps by which all men trained as radio and buzzer operators were absorbed into that service as rapidly as they developed a suitable proficiency. Because of the rapid expansion of Army departmental activities, the placement of men for other occupations was not so satisfactory during the first months of the operation of the evening classes; but the vast majority of men were placed in accordance with training which they had received. On May 7 The Adjutant General issued the following order to all personnel officers in camps and cantonments, through division commanders:

Draft men sent your division from the May draft and all subsequent drafts who have certificates showing that they have been instructed in certain subjects in schools under the direction of the Federal Board for Vocational Education, should be given assignments where they can utilize the training obtained in these schools. You are directed to instruct your personnel officers to record on classification card training each man has received, and make assignments accordingly.

McCain,
The Adjutant General.

Up to June 30, men ready to accept induction were being received into the Army corps daily through the War Service Exchange; radio operators were being constantly inducted into the Signal Corps, and the assignment of men by personnel officers at camps and cantonments, in accordance with their training, was improving.

As the requirements of the Army for men trained as mechanics expanded, it became evident that in order to keep up production in

essential industries, every possible effort should be made to increase the number of trained workers. When the law was passed changing the draft ages, the Board sought for some method by which the training facilities under the direction of the State departments of vocational education could be utilized more fully, both for the benefit of industry and the Army. On June 6 the Board took action modifying its previous requirements for entrance to war-emergency classes for which Federal funds could be expended. Originally, and in accordance with mobilization plans under the terms of the first draft, the Board required that enrollment in such classes should be limited to men in draft classes 1 and 2; but it seemed, in view of the forthcoming draft, that others could and should be admitted to the classes, including—

(a) Conscripted men already in the draft, subject to draft control, regardless of their classification or class status.

(b) Persons 18 years of age who possessed the necessary qualifications to profit by mechanical or technical instruction given in accordance with special bulletins on Army occupations issued by the Federal Board.

In accordance with authority voted by the Board on June 6, the director issued the following rulings:

Provided that all persons admitted to such evening classes shall possess the necessary qualifications for profiting by mechanical or technical instruction given in accordance with special bulletins on emergency war training issued by the Federal Board, Federal funds may be used as reimbursement for one-half of the salaries of teachers in classes admitting any of the following groups:

(a) Persons over 18 years of age who may later become liable to military duty;

(b) Conscripted men subject to draft control regardless of their draft classification;

And further,

(c) In communities unable to maintain separate trade-extension and war-training classes, prospective soldiers may be admitted to evening trade-extension classes, provided the instruction shall be supplemental to their regular day employment, and such students shall be reported to the Federal Board on regular war-training report forms.

This action simply extends evening school opportunities to other groups of people than those included under the resolution adopted by the Federal Board November 9, 1917, which was ruled to apply only to conscripted men in draft class 1. (See Bulletin 4, part 1.) Since that date Congress has passed a law making all men, as they become 21 years old, subject to the selective-service laws, and war demands have made it necessary to call into service men in deferred classifications and also men physically qualified for limited military duties. For these reasons, the Board authorized the use of Federal funds as stated in this communication, but at the same time notifies the States that this action is not to be regarded as a precedent in the interpretation of the expression "supplemental to day employment" given in section 11 of the Smith-Hughes Act, where evening school work is defined. Furthermore, the evening school work herein referred to must be of less than college grade and

will be subject to all the requirements of the Smith-Hughes Act and the policies of the Federal Board.

State authorities for vocational education are responsible for prompt, accurate, and complete reporting on forms provided by the Board as a requisite for reimbursement, in accordance with the vote of the Board on May 9, 1918.

Evening war training classes may be conducted in private institutions, and reimbursement for one-half of the teachers' salaries made from Federal funds, provided the instruction is under public supervision and control, and the other half of the salaries paid from funds under public control.

The Federal Board has ruled that the term "evening class" means a class conducted during hours outside the students' regular hours of employment.

A brief statistical report is appended giving the numbers of men by occupations in which they have been trained and by States. Briefly, the Board's principal contributions to training for Army service may be summarized as follows:

1. Assisted in determining a system of classification by which drafted men with special qualifications could be located and called by the Provost Marshal General.

2. In cooperation with Army officials; prepared a series of bulletins which have become the basal texts for Army training purposes. The entire expense of preparation and publication has been borne by the Board.

3. Proposed the plan and assisted in the organization of the administrative scheme through which about 100,000 men will have been trained for corps service in mechanical lines in day classes throughout the country.

4. Promoted the training of 19,694 radio operators, not less than 5,000 of whom were inducted into the Signal Corps. Absolute figures can not be given, but all the evidence points to an equal number for the Navy and the mercantile marine. Moreover, several thousand more men received training which was utilized in corps service in some phase of radio operation or repair.

5. Through State departments for vocational education, prepared for service in mechanical occupations in the Army 16,060 men trained in evening classes, and established with the War Department a system of identification, certification, and assignment to service where their skill could be utilized.

NOVEMBER 13, 1918.

Total enrollment in war-training classes, by occupations.

Total	35,754
Radio	19,694
Nonradio courses	16,060
Auto mechanics (including gas-engine repairmen)	4,867
Auto and truck drivers	1,383
Machinists	1,890

Nonradio courses—Continued.

Woodworkers	486
Electricians	1, 016
Airplane workers	462
Welders	613
Sheet-metal workers	209
Blacksmiths	310
Mechanical draftsmen	573
Other courses ¹	4, 231

Centers and enrollment.

	Radioclasses.		Nonradio classes.			Radioclasses.		Nonradio classes.	
	Centers.	Enrollment.	Centers.	Enrollment.		Centers.	Enrollment.	Centers.	Enrollment.
Alabama.....	1	21	.....	.....	Nevada.....	7	67	.....	.....
Arizona.....	3	62	.....	.....	New Hampshire.....	3	40	3	186
Arkansas.....	4	270	1	136	New Jersey.....	5	305	.....	75
California.....	10	603	6	894	New Mexico.....	1	51	.....	.....
Colorado.....	8	834	1	550	New York.....	10	1,949	2	2,961
Connecticut.....	6	262	.....	400	North Carolina.....	.....	.....	.....	.....
Delaware.....	2	390	2	156	North Dakota.....	.....	136	.....	.....
District of Columbia.....	2	150	.....	.....	Ohio.....	26	632	4	730
Florida.....	1	38	.....	.....	Oklahoma.....	5	209	4	148
Georgia.....	3	188	.....	.....	Oregon.....	2	219	.....	.....
Idaho.....	3	53	.....	.....	Pennsylvania.....	14	1,373	5	193
Illinois.....	24	1,210	.....	.....	Rhode Island.....	3	146	1	71
Indiana.....	31	1,356	.....	.....	South Carolina.....	.....	.....	.....	.....
Iowa.....	16	426	23	1,008	South Dakota.....	4	135	.....	.....
Kansas.....	8	354	.....	.....	Tennessee.....	2	60	.....	.....
Kentucky.....	3	413	.....	.....	Texas.....	5	367	.....	.....
Louisiana.....	6	463	5	362	Utah.....	3	186	.....	.....
Maine.....	2	94	3	400	Vermont.....	.....	.....	5	112
Maryland.....	2	73	.....	.....	Virginia.....	2	371	6	1,106
Massachusetts.....	15	1,252	6	704	Washington.....	6	556	5	1,927
Michigan.....	16	891	.....	.....	West Virginia.....	3	54	2	232
Minnesota.....	9	319	14	1,067	Wisconsin.....	33	1,704	15	1,672
Mississippi.....	2	21	.....	.....	Wyoming.....	3	85	1	61
Missouri.....	10	843	7	872	Totals.....	329	19,694	122	16,060
Montana.....	1	45	.....	.....			
Nebraska.....	4	418	1	37					

AGRICULTURE.

In spite of the chaos in opinion and practice as to instruction in secondary agriculture, it has been introduced in many schools scattered throughout the country. Though statistics show that agriculture as a subject of instruction has been introduced into but 19 public high schools up to and including 1900, it was introduced in 33 schools between 1901 and 1905 and in 413 schools between 1906 and 1910. In the summer of 1916, according to the United States Bureau of Education, 2,981 high schools reported pupils in agricultural courses. However, only 2,166 of these schools were giving instruction in agriculture in a serious way. Of these, about 25 per cent stated that their courses were vocational in purpose. The proportion of the schools whose work was actually vocational was probably smaller.

¹ Includes army cooking, paper work, horseshoeing, veterinary science, shoemaking, concrete work, topographical drafting, photography, etc.

Many schools which reported their work as vocational reported also that the method of instruction was limited to classroom-recitation work. Others reported some laboratory work in addition to classroom work, but no practical work, either on school land or in the performance of home agricultural projects. Six hundred and seventy-six, or 30 per cent, combined classroom instruction with laboratory work and practical farm work, either on school land or at the homes of pupils through the project method, and 33 per cent of the number used the home-project method, although in only 261 instances were the home projects supervised by the agricultural instructor. However, as a matter of fact, a considerable number of public high schools in the United States other than those included in this report were undoubtedly using the home-project method at that time.

At the present time the proportion of high schools giving truly vocational instruction in agriculture is probably between 20 and 25 per cent of the whole number. State boards for vocational education reported, for the fiscal year 1917-18, 609 special schools of agriculture or agricultural departments in high schools which had qualified for Federal aid under the Smith-Hughes law. (See statistical report, Tables 5, 6, 7, and 8, pp. 95 to 101.)

SPECIAL SECONDARY INSTITUTIONS.

Parallel with but somewhat antedating agricultural instruction in public high schools, there developed in various parts of the country special secondary institutions for agricultural instruction. They usually own a farm, barns, herds, flocks, etc., and are so costly that relatively few can be maintained in a State. This, of course, means that in most cases students must leave home. The parent loses the work of the boy out of school hours, and the boy loses home advantages. Instruction in all cases is strictly vocational in aim, and has undoubtedly had a good influence in showing to high schools the importance of the vocational aim in agricultural instruction. However, in many cases students at these special secondary schools get little actual farming experience.

Experience and observation of secondary instruction in secondary schools during the introductory period finally brought out of the chaos of opinion and practice a fairly general point of view. It is granted that there is a need for both special and secondary schools of agriculture and for courses in agriculture in our public high schools. However, for the majority of pupils the advantage is conceded to be in agricultural courses in the established high schools. Relatively small communities are served by these schools and pupils may live at home. But one or two agricultural teachers are needed for

each school. Since many of the agricultural pupils live at home on farms, the cost of agricultural equipment for such a school may be low. Each boy may do directed practical work, and carry on definite home projects on the home farm in connection with his school work. Herds, barns, flocks, and crops of the community may be used for illustrative purposes and for laboratory and field instruction.

STATE AND FEDERAL AID.

Discovery of noneffectiveness of agricultural teaching in many schools has been followed by a realization of the necessity of careful definition of the aims of such instruction and for vocationalizing the work. The problem of agricultural instruction in high schools is seen to differ radically from that of nonvocational instruction. Different methods and materials of instruction must be employed and therefore teachers must be especially trained for the work.

To reorganize needed reforms and advances in the work was an important step. To bring about needed reforms presented many problems and difficulties. There was much difference of opinion as to how it should be done and insufficient tested information.

High schools giving agricultural instruction were widely scattered. They were independent as to course of study and methods. The training of agricultural teachers varied within wide limits. Equipment was often inadequate, but occasionally so extensive as to be unwieldy.

It became evident that the importance of agricultural and other secondary vocational instruction was so great, and their problems so many, that they could be adequately met only through State and Federal aid and by thorough State organization of the work. Through the Federal vocational education act this was made possible.

PROVISIONS OF THE FEDERAL LAW.

As regards agricultural education, the act contemplates and provides for aid in promoting instruction in public high schools, for aid in teacher training, and for aid in supervising instruction in the schools.

Provision is made for two funds: (1) For salaries of teachers, supervisors, and directors of agricultural subjects; and (2) for training teachers, a portion of which shall be used for the training of teachers, supervisors, and directors of agriculture.

The total appropriation for salaries of teachers, supervisors, and directors of agricultural subjects was \$548,000 in 1917-18, and increases yearly to a maximum of \$3,027,000 in 1925-26. This latter is the annual appropriation thereafter.

The appropriation for teacher training was \$546,000 in 1917-18, and increases yearly to a maximum of \$1,090,000 for the year 1920-21, this latter sum being the annual appropriation thereafter. Not more than 60 per cent nor less than 20 per cent of the appropriation for the training of teachers for any year shall be expended for the preparation of teachers, supervisors, or directors of agricultural subjects.

The first year during which the act has been in operation promises well for the future. The machinery for carrying out the provisions of the act has been set up. Agricultural education thought has been stimulated throughout the country. The quality of much of the work previously initiated has been improved because of the recommendations and requirements of the newly created State and Federal boards for vocational education. New work has been started along approved lines. Investigations as to agricultural education have been instituted; of which some are already completed and others are in progress.

TEACHER TRAINING.

Previous to the passage of the act the States had established and were maintaining, partly through Federal aid, institutions of college grade equipped to prepare practical farmers and specialists in agricultural science. These institutions had not, however, except in a very few instances, established training departments for teachers of vocational agriculture, nor was such training offered in other educational institutions, except in an incomplete, inadequate way. Since the passage of the vocational education act every State has, through its State board for vocational education, set up plans for the training of these teachers, and has designated institutions where the work is to be carried on. (See statistical report, Tables 5, 6, 7, and 8, pp. 95 to 101.)

The importance of this advance is evident. The quality of the teaching is the pivotal fact in any system of schooling. High quality in teaching can be secured only through careful preparation and training. This is especially true with regard to agricultural teaching because of the wide scope and special demands of such work.

The formulating and promulgation of high yet sane ideals as to the qualifications of vocational agriculture teachers, the establishing of standards as to their training, the designating of institutions which shall be federally aided in carrying on such training, and the starting and developing of teacher-training departments in these institutions, furnish a sound foundation and safe insurance for the future betterment and continued success of instruction in vocational agriculture in our public high schools.

STATE SUPERVISORS.

Before the passage of the act very few States had supervisors of vocational education, and still fewer had special supervisors of agricultural education. Due to the vocational education act, practically every State has now formulated plans for the supervision of the teaching of vocational agriculture in secondary schools. They have set up qualifications for State supervisors and have prescribed duties for the supervisors of agriculture who have been appointed.

The significance of this move will be more fully appreciated in future years. The agricultural supervisor is destined to be no mere holder of an "educational job," but a vital factor in the success of the agricultural education system of his State. It is his duty to inspect, check up, and report on the agricultural work done in the schools; but his supervisory work is inadequately done if it does not result in an improved quality of instruction. It is his duty to discover and point out individual weakness and strength in teachers, to supply them with information as to the work expected from them and the standards to be reached. The professional improvement and training of teachers in service are also included in the work with which he must, in cooperation with the vocational teacher-training institution, concern himself.

If he is thoroughly equipped for his work he will do work of incalculable value in promoting agricultural education in his State. If he is not adequately qualified for his work he may do much harm. In such a case he will, at the least, quench the enthusiasm and ambition of his teachers and prove a distinct bar to progress.

STANDARDIZATION UNDER THE FEDERAL LAW.

In the promotion of vocational agricultural instruction in the public schools, the outstanding advance of the year is not the introduction of agriculture in a large number of schools. It is that Federal aid is being given to qualified schools, standards have been set up for the work, and the trend in high school instruction in agriculture has been definitely and permanently turned toward practicality and vocational efficiency, not merely in a few States but in all.

TRADE AND INDUSTRIAL EDUCATION.

CONDITIONS IN THE COUNTRY AT THE TIME OF PASSAGE OF THE NATIONAL VOCATIONAL EDUCATION LAW.

For the last quarter of a century there has been growing up in the United States a sentiment in favor of a more practical education.

The term "vocational education" came prominently to the front after the report of the Douglas Commission in Massachusetts in 1906.

This term, however, had various meanings in various States and among educators themselves. The term "industrial education" was applied to many phases of vocational work which could be called in no sense vocational. The term "vocational," however, very quickly became popular, and without regard to the true meaning of the word "vocational," any form of practical education, such as manual training in elementary and secondary schools, certain subjects of study in the high schools, such as machine-shop work, pattern making, mechanical drawing, certain courses of study in which some phase of industrial work was offered, even certain attempts at welfare work, came to be called "vocational."

At the time of the passage of the Federal act only 7 of the 48 States could be said to have developed State systems providing State aid for vocational education. These were Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Indiana, Wisconsin, and California. These States had laws which provided for the participation of the State in financially assisting vocational schools, and most of the acts in these States fairly well provided for various types of vocational education. These States also had men who were charged with the responsibility of the administration of the vocational act.

To a certain extent, out of the experience of these schools, there came to be recognized certain types of schools which were known as the all-day, the part-time, and evening schools, and the Federal act, shaped somewhat in accordance with the experience of these States, provided for these three kinds of schools.

The tendency among school men has been to think largely in terms of their own experience—that is, the all-day school—and during the period in which the idea of vocational education has been growing much of the time and attention and much that has been written has been concerning the all-day school. In this thinking it has been difficult for school administrators to really feel that vocational education was for persons who had definitely selected a vocation for which definite preparation was being made or upon which the person who was to receive vocational training had entered.

Here the influence of the colleges and universities upon the secondary schools was very evident. Secondary schools in their development had come to be run primarily to provide preparation for higher institutions, and due to this influence almost any secondary school had to formulate its course of study in terms of college entrance.

The attempt to compromise with this requirement and the growing demand on the part of the public for a more practical education, technical high schools and manual training high schools were organized and maintained, not always with the idea of giving a complete preparation for a vocation, in fact seldom giving complete preparation.

The course of study in these institutions had, of necessity, to be patterned somewhat after the classical course with a substitution of practical shop work for ancient and in some cases modern languages. The courses were generally organized to extend over a period of four years, and since the idea of the equating of the practical work in terms of college entrance prevailed, the whole idea seemed to be to give a general education in the technical and manual training school rather than specific preparation for any one vocation.

During the four years of a manual training high-school or technical high-school course, the boys would have experience in various kinds of practical work in shops, sometimes engaging in as many as a half dozen different kinds of industrial work. It was apparent, however, that secondary schools giving this kind of education did not meet the real need of the very large proportion of boys who must of necessity leave school to engage in industrial work.

The schools, however, as they developed had provided for a large number of boys who were not fitted by native capacity or by inclination for classical work, and doubtless have been of great value in keeping many young people in school who otherwise would have gone to work without the valuable education they have received.

In the seven States above mentioned, however, and in a number of cities in other States, there have been organized schools which gave a preparation for one trade or industrial pursuit. In most instances, however, these schools were not organized on a four-year basis, and in many cases the majority of pupils in these schools had not completed an elementary education.

The situation in regard to part-time schools may be summarized in a few words. While there had been a rather general acceptance of the desirability of organizing part-time education, two States only, Wisconsin and Pennsylvania, had given the subject serious enough attention to provide for the compulsory part-time schools for young persons over 14 years of age.

Some of the other States had provided for permissive part-time education, but, with the notable exception of Boston, few cities had taken advantage of this provision of the State act. Scattered here and there throughout the country there were part-time classes, usually on the week-about basis, for boys employed in industrial pursuits.

At least five of the States above mentioned had made provision for evening industrial classes to provide instruction supplementary to the day employment of the persons taking this instruction, but the storm of protest had hardly died down in some of the States concerning the undesirability of providing a form of public education which excluded any one until the term "supplementary" was understood, and, until the differences between trade preparatory and trade extension were understood, it was difficult to get many school administra-

tors and others to see that it was disadvantageous to attempt to prepare people for particular trade or industrial pursuits in evening classes and to give instruction to persons already engaged in these trade or industrial pursuits.

In the conduct of evening schools in general, no clear distinction or division was commonly made between classes to promote efficiency and classes designed to extend general education.

It would be difficult to catalogue all of the activities which have been carried on in evening schools. Evening classes were conducted to give instruction in elementary-school subjects to persons who had not completed these subjects in the day schools—algebra, geometry, chemistry, Latin, French, German, were taught in evening schools. These classes were attended by persons who desired to complete a high-school education, either for the purpose of qualifying for entrance upon the preparation for a profession or for the purpose of extending their general knowledge and information.

Evening-school classes had been organized to teach English to foreigners in order that we might have a more loyal and effective citizenship. Evening-school classes in candy making, hand crafts, tatting, pyrography, leather work, weaving, basketry, and clay modeling had been successfully conducted. Cities with public-school gymnasiums have thrown them open that men and women might secure physical education. There were evening classes in dancing, military drill, calisthenics, classes in dramatics, amateur theatricals, training in orchestral work, chorus singing, evening piano lessons, and voice culture. There were classes organized to teach such subjects as stenography and typewriting, machine-shop work, electrical work, plumbing, machine operating, and dressmaking.

There had been generally, however, no clear differentiation between the classes which were to provide for general education, skill in one of the arts, and vocational education. In many of the cities there were privately endowed schools giving some form of trade or industrial education. Much credit is due to these institutions in showing the way to give effective evening-school work.

TEACHER TRAINING.

In the field of teacher training only two of the seven States above mentioned could have been said to have entered upon any program of providing trade or industrial education, and in these two States the work could be said to have only been fairly begun. As a whole, the States had almost no experience in training teachers for any kind of service in trade or industrial schools, either day, part-time, or evening.

In the field of teacher training, therefore, the experience was so slight that the problem presented brought the Federal and State boards into an almost entirely new field.

TYPES OF TRADE AND INDUSTRIAL EDUCATION PROVIDED FOR IN THE LAW.

The act provides for a minimum of \$5,000 for each State for trade and industrial education, of which a possible 20 per cent may be used for home economics education. There is a further limitation in that one-third of the sum available, if expended, must be used for part-time schools or classes.

There is also provided a fund available in each State for the preparation of teachers of trade and industrial subjects of not less than \$5,000, of which at least 20 per cent, and not more than 60 per cent, may be used for the training of teachers of such trade and industrial subjects.

It is clear, then, that in the consideration of trade and industrial activities furthered by the Federal act there are two subjects to be discussed—(1) the organization of trade or industrial classes; (2) the organization of teacher-training classes.

Under the Federal act six types of trade or industrial schools or classes may be organized:

A. Unit trade.

B. General industrial in cities under 25,000.

C. Part-time trade extension.

D. Part-time trade preparatory.

E. Part-time general continuation.

F. Evening industrial.

What follows is partly definition and partly description of these types of schools and classes, the statements made being based entirely upon sections 8 and 11 of the act, in which the authority for all these statements may be found.

LEGAL PROVISIONS APPLYING TO ALL TYPES.

Schools or classes of each type specified above must fulfill certain requirements, which may be enumerated as applying generally to all forms of Federal-aided trade, industrial, and home-economics instruction.

In the case of each school or class established under the Federal act, (a) it must be established and maintained under public supervision and control; (b) it must provide instruction of less than college grade; and (c) it must be conducted in accordance with a plan adopted by the State board for vocational education and approved by the Federal Board, which plan must show the necessary plant and equipment, the minimum annual maintenance, the courses of study,

the approved methods of instruction, and the qualifications of teachers, including adequate vocational experience or contact.

For convenience these requirements or conditions of all types of schools or classes may be listed as follows:

1. Public supervision and control.
2. Instruction of less than college grade.
3. Compliance with approved State plan, as regards—
 - (a) Plant and equipment.
 - (b) Minimum annual maintenance.
 - (c) Courses of study.
 - (d) Methods of instruction.
 - (e) Qualifications of teachers.

A. UNIT TRADE SCHOOLS OR CLASSES.

A unit trade school or class established under the Federal act is a public school or class established and maintained in any community for the purpose of fitting persons for useful employment in a particular trade or industrial pursuit through instruction of less than college grade (*a*) designed to meet the needs of persons over 14 years of age; (*b*) giving not less than half of the time to practical work on a useful or productive basis; and (*c*) extending over not less than nine months (36 weeks) per year, and not less than 30 (clock) hours per week.

When a group of young men over 14 years of age not yet employed attend an all-day school or class for the purpose of preparing for entrance into the plumbers' trade, for example, and when the instruction given in both shop and related class work is based solely upon the plumbers' needs, this constitutes a unit trade school or class.

B. GENERAL INDUSTRIAL SCHOOLS OR CLASSES.

A general industrial school or class established under the Federal act is a public school or class established and maintained in any city or town of less than 25,000 population for the purpose of fitting persons for useful employment in trade or industry through instruction of less than college grade (*a*) designed to meet the needs of persons over 14 years of age, and (*b*) giving not less than half the time to practical work on a useful or productive basis. The general industrial school is designed to meet the particular needs of cities or towns of less than 25,000 population.

If the group of boys preparing in our unit trade school had been a very small group living in a town of less than 25,000 inhabitants, it would perhaps have been impossible to provide them with a special shop and a special teacher for instruction in plumbing only.

In this case boys from other building-trade groups, such as, for example, carpentry, bricklaying, and plastering, might have been added to our original class, so as to form a class in the building trades rather than in any one (unit) trade.

Such a class would receive shop instruction as nearly like that of a unit trade school as possible under the conditions, and would receive instruction in related work underlying the building trades as a group—for instance, in mathematics, estimating, structural and elementary architectural drawing, and building ordinances and regulations. This would be a general industrial school or class.

C. PART-TIME TRADE EXTENSION SCHOOLS OR CLASSES.

A trade extension part-time school or class established under the Federal act is a public school or class established and maintained in any community for the purpose of giving instruction of less than college grade to persons over 14 years of age who have entered upon the work of a trade or industrial pursuit, which instruction shall further fit persons taking it for useful employment in the trade or industrial pursuit in which they are employed. The instruction in a trade extension part-time school or class must meet the needs of persons over 14 years of age; and must be given for not less than 144 hours per year.

Thus, the plumber's apprentice before mentioned might be given the identical instruction set forth for the evening class, and such instruction constitute part-time work, but only in case it is given between the hours of 8 a. m. and 5 p. m., which are assumed to be the limits of the plumber's working day. Instruction not supplementary to the plumber's trade, such as instruction in English or industrial history, could not be given in this class. Such subjects would be permitted only in the general-continuation school described below.

D. PART-TIME TRADE PREPARATORY SCHOOLS OR CLASSES.

A trade preparatory part-time school or class established under the Federal act is a public school or class established and maintained in any community for the purpose of giving instruction of less than college grade to persons over 14 years of age who have entered upon employment, which instruction shall be designed to fit these persons for useful employment in a trade or industrial pursuit other than the one in which they are employed. The instruction in a trade preparatory part-time school or class must (a) meet the needs of persons over 14 years of age; and (b) must be given for not less than 144 hours per year.

The work already mentioned in two examples of plumbers' part-time instruction might, if elementary enough, be given between 8 a. m. and 5 p. m. to a group of pupils employed as messengers, clerks, soda-fountain men, drivers, and in other occupations, excepting plumbing, the instruction being devised to prepare for entrance into the plumbing trade. Such a class would be a part-time trade

preparatory class. Its work would seldom, if ever, coincide with that of the trade-extension class, and the success of such instruction, except as an entering wedge to be followed later by part-time trade-extension work, is generally doubtful.

E. PART-TIME GENERAL-CONTINUATION SCHOOLS OR CLASSES.

A general-continuation part-time school or class established under the Federal act is a public school or class established and maintained in any community for the purpose of giving instruction of less than college grade to persons over 14 who have entered upon employment, which instruction shall be given in subjects to enlarge the civic or vocational intelligence of young workers. The instruction in a general-continuation part-time school or class must (a) be designed to meet the needs of persons over 14 and less than 18 years of age; (b) be given for not less than 144 hours per year.

The group of plumbers in this example of a trade-extension class and the mixed group from various occupations in this example of trade preparatory work might, if they were all over 14 years of age, be grouped together in classes where instruction would be given in such subjects as English, civics, history of industries, arithmetic, trade mathematics, or any commercial branch or elementary school subject. Such a class would be a general-continuation part-time class if it met between 8 a. m. and 5 p. m. where these hours constitute the working day.

To similar classes might come young women from stores or factories to study home economics subjects, commercial subjects, industrial subjects not trade extension or preparatory, and general educational courses.

F. EVENING INDUSTRIAL SCHOOLS OR CLASSES.

An evening industrial school or class established under the Federal act is a public school or class established and maintained in any community for the purpose of giving instruction of less than college grade in a particular trade, supplemental to the day employment, to persons over 16 years of age who have entered upon employment in that trade or industrial pursuit.

For example, an evening industrial school for plumbers' helpers could be established to give these boys instruction in blue-print reading for plumbers; in State and local rules and regulations for plumbing installation in costs and estimating; and in other allied subjects, all related to the plumbing trade. The instruction would be of less than college grade and given outside the hours of 8 a. m. and 5 p. m., if these hours constituted the regular working day for plumbers in that community.

G. TEACHER-TRAINING SCHOOLS OR CLASSES

The Federal act does not prescribe conditions for the training of teachers other than that a State must undertake the training of all three kinds of teachers, agricultural, trade and industrial, and home economics, beginning with the fiscal year 1920, and the plans for such training of teachers proposed by the State boards shall be submitted by the State board to the Federal Board for approval. This leaves the matter as to the kinds of work which shall be done in the training of teachers of trade and industrial subjects very largely in the hands of the Federal Board.

PROGRESS SINCE ORGANIZATION OF THE FEDERAL BOARD.

As the result of the passage of the Federal act, the publications of the Federal Board, and the work of its agents every State in the Union is organizing schools or classes in industrial education in accordance with the statements stated in this section of the report, which deals largely with the standards which have been set up by the Federal Board in the field of trade and industrial education in accordance with the discretionary powers granted to the Board by the Federal act.

GENERAL EDUCATION AND VOCATIONAL EDUCATION.

It may be well to emphasize at this point that the Federal funds are appropriated for the very specific purpose of providing vocational education and that vocational education is intended for persons who have chosen or have entered upon a particular employment. Since the administration of vocational education usually rests in the hands of persons charged also with the responsibility for the organization and conduct of schools giving general education, confusion often results between the two kinds of educational activities—general and vocational.

General education, properly directed and controlled, aims to improve general intelligence. Vocational education, on the other hand, aims to make an intelligent producer, either of commodities or of services. The aims of elementary and high schools include many motives which are not germane to vocational training.

Many high schools have as a definite aim the preparation for entrance to higher institutions of a large number of pupils who are at least potential candidates for entrance into such institutions. Education and training of this character does not primarily concern itself, as does vocational education, with the preparation of youth for immediate self-support in a determined-upon occupation.

In a sense it is true that all education, provided the educative process is well planned and well executed, is preparation for citizenship and for vocational activities, but it should be clear that the

dominant aims of a person or group of persons at any given time should determine the content and the method of the appropriate educational process.

When an individual starts upon his life work, either by definite preparation for a particular vocation or by actual participation in the work of that vocation, his interest in studies possessing exclusively a general or interpretative value is eclipsed by the immediate focusing of his attention and by the concentration of his efforts upon vocational interests.

Except in the case of a few professions, such as law, theology, and medicine, until comparatively recent times, men have learned vocations by entering upon them. During the last century, however, there has been a rapid growth of vocational schools of many kinds, such as normal schools, dental colleges, pharmaceutical schools, training schools for nurses, engineering schools, agricultural colleges, and business schools. As society has developed needs for the services of persons trained in special vocations, schools, either private or public, have been established to prepare persons who have chosen for a life work service in particular vocational fields. Vocational schools have not been organized, however, until the vocations themselves have developed a content, technique, or method to such an extent that adequate preparation could no longer be given by apprenticeship or shop-training methods.

It must be assumed as axiomatic that vocational education is intended and provided for individuals who have made definite vocational choices, and for such individuals only.

A clear understanding that this determination of aim is an essential prerequisite to effective vocational training of an individual would clear up much confusion which now exists as a result of the use of the term "vocational" to describe certain subjects of study in the general elementary or secondary school, such as manual training or mechanical drawing and shopwork, which are pursued by those who probably have not yet selected a vocation. While the educational value of these and other "practical" subjects is not questioned, there rests clearly upon the school and the community an obligation to set up adequate means to help the pupil and his parents to determine wisely upon specific vocational preparation.

TYPES OF VOCATIONAL CLASSES.

Vocational education is for two distinct groups of students. Boys and girls enrolled in public schools who are preparing to enter a particular occupation may be given instruction in all-day vocational schools; and workers who have already entered upon employment may be given vocational training in part-time and evening schools.

As regards day vocational schools, while the number of persons who can undertake long periods of training in day schools as a preparation for entering upon industrial employment may be comparatively small, the measure of the value of day vocational schools can not be found in the number of pupils they serve. It is found rather in the importance of the service rendered. When organized, planned, and administered so as to give work which will in part take the place of the former apprenticeship training, the day schools should prepare persons for leadership in the skilled trades and vocations. They should also become centers for the standardization of the trade taught. There are limitations to the possibilities for day-school work, however, which should be frankly discussed.

Unfortunately few persons in the past have entered upon employment with a definite choice of a life work, and these are, therefore, not definitely candidates for any specific course of day-school training. Moreover, relatively few trades or industries have enough content to make up an extended course of study for a day vocational school; and, finally, the per capita cost in a separate day vocational school is high—usually much higher than it is in secondary schools giving general education.

A community should give careful consideration to these limitations in determining what kind of vocational schools it should establish.

The public cosmopolitan high school can, under favorable conditions, undertake courses of one to four years, provided a separate department for the vocational courses is created, and provided such courses are supported by a sufficiently broad conception of community needs on the part of those charged with this sort of secondary education. Such a high school will assume its full responsibility if the vocational courses meet two sorts of community needs: First, these of the youth in that community who will seek employment before or at the completion of the high-school course; and, secondly, those of the industries of that community for greater efficiency in their labor force.

The ways in which a community should determine what kind of vocational schools it should have, if any, will be pointed out later. The Federal Board believes that the most careful consideration should be given to this matter before a final decision is made to establish day trade or industrial schools.

Schools for workers are of two types. First, those for persons who are employed under such conditions that they can give a part of the regular hours of employment to educational work, and, secondly, those for persons who must secure their further education, if at all, outside regular working hours. The former are part-time schools, the latter evening schools.

NEED FOR PART-TIME EDUCATION.

The distribution of the total school enrollment of the country emphasizes the fact that great numbers of boys and girls quit school during the upper grades of the elementary school. The Report of the Commissioner of Education, 1917 (p. 7), shows that the total school enrollment of 1915 was 21,958,836, distributed as follows:

	Per cent.
In elementary schools-----	91.03
In high schools, academies, and secondary schools-----	7.13
In higher institutions-----	1.84

It is estimated for the year 1915 that more than two-fifths (42.3 per cent) of the youth of the country between 15 and 17 years of age were not in school. The attendance begins a precipitate decline at the end of the fifth grade, and at the age of 14 years. According to the Federal census in 1910, the percentage of boys not in school increased from 11.7, or about one-ninth, in the age 13 years to 66, or two-thirds, for the age 17 years, the corresponding percentages for girls being 10.7 and 63.4.

Approximately 2,000,000 school children arrive at a given age annually. One-half of the children of 16 years and under 17 have left school either in that year of age or at some younger age. Of those 17 and under 18 years, as noted above, two-thirds have left school, and of those 18 and under 19, that is to say, of those classified in the census as 18 years of age, more than three-fourths have left school. Of all boys 14 and 15 years of age, i. e., between the exact ages 14 and 16 years, 41.4 per cent or two-fifths, and of all girls in these ages 19.8 per cent or one-fifth, are in gainful employments. (Federal census, 1910, Vol. IV, p. 69.) The number gainfully employed in the ages 14 and 15 years may be estimated for 1918 as being approximately 800,000 boys and 400,000 girls.

Because of the large numbers of children who leave school at an early age, without opportunity for choice of an occupation or an adequate understanding of the need of preparation for it, and because these same boys and girls drift into uneducative and unprogressive jobs, it is imperative that the public school extend its responsibilities to meet the needs of these youths who have already entered employment by establishing part-time schools and classes.

TRAINING OF TEACHERS.

The experience in training teachers for trade and industrial subjects has not yet been extensive enough to enable the Federal Board to state what shall be the final approved procedure in training such teachers.

Each of the 48 States has entered upon a program which includes the securing of men and women with adequate industrial training

to be teachers of particular trades and industries and also has provided for the training of related subjects' teachers.

It may be stated that as a general proposition a teacher-training course for teachers in trade and industrial schools is effective in proportion to the degree in which it meets the following conditions:

1. It must draw upon the largest possible group of people having the necessary preliminary training.
2. It must be made accessible to that group.
3. With due regard to producing teachers who will be able to do the required work in trade and industrial schools, the course must be as short and practicable as possible.

In some States it has been proposed to bring to the State institutions chosen to give the work groups of qualified artisans for a two-year course of instruction in residence. Unless some method of stimulating such attendance is found, this method of training is not likely to produce a large number of teachers. The demands for men in industry to-day are great, wages very high; properly qualified artisans of sufficient maturity are likely to have family obligations. All these considerations will operate to make a rather restricted group of men who can be attracted to a training course for teaching.

In many States plans are under way providing for extension courses at appropriate centers where skilled men can readily be assembled; such courses to be conducted either by an agent of the State board or by an extension teacher employed by an accredited institution chosen by the State board for vocational education to give courses for trade and industrial school teachers.

It is recommended that State boards for vocational education give careful attention to possibilities of attracting a group of men with proper preliminary qualifications to attend evening classes, dull-season classes, and through short-term arrangements adapted to the conditions in their respective States.

In offering the following for consideration it is suggested that the State board would do well to survey the conditions and probable demands in the State, and determine what kind of schools and, therefore, what kind of teachers will best promote the industrial interests of the State and the welfare of the children to be trained in the schools.

So far as can be seen at present, the most productive and effective industrial education will for some time to come be given in evening and part-time courses. Under present industrial conditions the great bulk of industrial education will be so given. The courses on the whole will be relatively short, of an intensely practical character, which implies many teachers on part (or extra) time employment, and of expert trade skill.

To recruit such teachers is no easy task, and whatever training is given them prior to their taking charge of a class will be short in time and intensive in purpose.

- (a) *As to time:* Relatively few men can or will separate themselves from a job to take a long-term course of training for teaching—say, a year or more—at an institution. There are too many risks involved from the man's point of view, and almost universal lack of money and family obligations would prevent. Again, the inducements to enter school-teaching are not great enough to offset the risks. Consequently, we must infer that the teacher training in trades and industries must be done for the most part in short-time courses, and at hours when the man is not engaged in his regular employment. This implies an evening training class, about 4 hours a week for about 30 weeks in a year.

- (b) *As to purpose:* Given a skilled mechanic for 120 hours, what shall be given him, and how, in order to prepare him to become an effective trade teacher? Obviously, not a knowledge of his trade, but equally obviously, a training in the "mechanics of teaching," of school methods, of organization, and a point of view.

This includes teaching him—

- (a) How to analyze his knowledge of his trade and the processes and methods therein.
- (b) How to arrange the elements in an effective teaching order.
- (c) How to teach instead of show and tell.
- (d) How to manage a class.
- (e) How to handle discipline.
- (f) How to work with other teachers.
- (g) How to keep school records.
- (h) Legal obligations and responsibilities of a teacher, etc.

All these and a hundred other things second nature to the experienced, thoughtful teacher are new to him, but must get into his consciousness and eventually into his practice, or he will be a poor teacher.

The function of a teacher-training class for teachers in trade and industrial subjects is largely limited to learning the elements of the teaching occupation. It can, for reasons above stated, concern itself very little with long discussions as to the pros and cons of vocational education theory, social and economic theory, other types of education, vocational education in other countries, or types of schools. Valuable and desirable as these are as a part of the equipment of every teacher in an industrial school, relatively few can ever be expected to get them in their preemployment training.

Furthermore, any such class as above mentioned, devoting its time to a discussion of the general aspects, rather than the intensive study of how to teach, defeats its own proper purpose.

If in a given State teachers in evening classes and part-time classes can in large numbers be held over from year to year and a plan for professional improvement be organized, thus insuring the continuous growth and development of the teachers, at least through a period of two or three years, the possibilities of the extension scheme of teacher training seem to offer the best solution under present conditions of the problem of securing trade and industrial school teachers.

It is believed that at present the best method of securing trade teachers is by training skilled workmen in extension classes, it being understood that such classes may include evening classes, short courses at dull seasons, summer schools, and possibly other provisions for relatively short periods of attendance and little interruption to the student's daily wage-earning occupation.

There are several other groups of teachers to be secured and prepared which have not yet been discussed, such as—

Related-subjects teachers (trade technical).

Teachers of nonvocational subjects.

Continuation-school teachers.

It has been suggested that the engineering college can probably organize effective courses for preparing teachers of technical subjects. Such courses, however, should be organized with the distinct aim of preparing teachers for service under the particular conditions presented by vocational schools and will differ in many ways from courses primarily intended to prepare men for the engineering professions. There are a few State normal schools and State colleges which have the necessary plant, including shop and laboratory equipment,

for preparing teachers of this type, but here again there must be clear recognition of the needs of vocational schools, which should have an important influence in shaping the method and content of the training course. Similarly it would appear possible for normal schools to prepare teachers for teaching non-vocational subjects in trade and industrial and for teaching in continuation schools. It should be stated, however, that such teachers must of necessity possess greater maturity of knowledge, judgment, and character than may be entirely acceptable in many positions in elementary schools, and, further, the courses must be shaped and adapted to the requirements of schools of a new type and dealing with groups of people with different aims and purposes than children have in customary elementary and high schools. Any school authorities undertaking the responsibility of training teachers for any type of service under the vocational education act face the responsibility of organizing new courses from a new point of view, for new purposes, and with great possibilities for service. Formalism, adherence to fixed, stereotyped methods, and lack of flexibility, out of place in any school, are particularly dangerous in a vocational school. In them only the keen, alert teacher of an engineering and experimental turn of mind can be expected to succeed. In addition he must be practical minded and acquainted with and interested in the industrial and economic life of his pupils, his community, State, and Nation.

6. *Control*: The State board for vocational education may conduct teacher-training classes in one of three ways—

- (a) By regularly appointed agents in its own staff.
- (b) By making suitable arrangements for giving teacher training at existing institutions.
- (c) By a combination of (a) and (b).

In preparing its plan for teacher training, the State board should recognize that it can not delegate all responsibility for the training of vocational teachers to any institutions it may select to carry out its plans. The board must retain responsibility for the supervision and control of such classes wherever they are conducted in the State, and its limitations should be thoroughly understood by any institution undertaking to conduct this training work with State or Federal aid.

It should also be understood that no institution can claim an inherent right to any of the funds which were allowed to a State for teacher training. Before designating the institution or institutions to do the work, the State board for vocational education should carefully consider the resources, teaching staff, the ability to do research work, spirit of progress, understanding of vocational work, and the willingness of those in authority at the State institutions to adjust themselves to new conditions and to State supervision.

It is suggested that the State board should do well to safeguard its interests by not entering into a permanent contract with any institution. It should reserve the right, in case it finds an institution is not carrying out the provisions of the act to its satisfaction, to change to another institution, or establish its own teacher-training schools.

State boards for vocational education should recognize that the selection of an institution to do this work does not imply that all the instruction is to be given on the grounds of the institution, but rather that this institution acts as an agency which may be called upon to organize training classes in various places in the State where there is a need for such service.

The State board may decide that it may train certain types of teachers at institutions, or through institutions, and retain the training of other types of teachers under its own control through designated agents in its employ; for

example, a State university might train students in residence in preemployment classes, and offer many useful courses for professional improvement of teachers as they are employed, but State agents might conduct preemployment classes in evening centers, leaving the professional improvement after employment to the university.

In any event, whatever plan may be adopted calls for careful study in order to make it fit the needs of the State and for the purpose of locating correctly the administrative arrangements regarding authority and responsibility.

It is apparent, from the foregoing, that during the first year of operation the Federal Board has been for the most part concerned with the promotion of an idea on vocational education as it is contained in the Federal act. In addition to the promotion of this idea there has, of course, been the clarifying of the problems concerned in the promotion of the work throughout the country, both in the minds of the staff of the Federal Board and those who are charged with the administration of the work in the States.

As a summary of what has been done, it is fair to say that the result of less than a year's work is a coming together on a common ground of understanding of the representatives of the Federal Board and of the representatives of the State board—an understanding of the problems concerned; and, to a certain extent, an understanding of how these problems may be attacked. The solution of these problems will be the work of years; but with 48 States building up administrative staffs competent to deal with these problems, there is the greatest hope for the future.

HOME ECONOMICS.

GENERAL STATUS OF HOME-ECONOMICS EDUCATION IN 1917.

Up to the time of the passage of the vocational educational act, generally known as the Smith-Hughes Act, there were comparatively few schools in the United States giving courses in vocational home economics. Home economics as a part of the general curriculum of the day school was well established throughout the country. Every State had some type of home economics in the schools and much of it was of excellent quality, but in most of these schools home economics was given as a part of the general education, and usually had about two periods a week devoted to the work. There was no well worked out program of home economics and related art and science and, in most cases, there was little correlation between the home-economics work and the other subjects of the school program. As taught in a large majority of the schools, the home economics was little more than cooking and sewing.

There is a fundamental difference between home-economics education as a form of vocational education and instruction in home-economics subjects as usually given as a part of general education. Home

economics education, as a form of vocational education, demands a well-rounded course of study directed to one main objective—the preparation of home makers and house daughters. It is the central course in relation to which the entire program is planned. As a part of general education, the essential relations between home-economics subjects and related subjects are seldom recognized; home economics is there considered merely one subject of general educational as well as practical value and as such has a place in a program of general subjects.

There were only a few schools in the East and a few other schools scattered throughout the country which did have the vocational point of view and in which an attempt had been made to provide a course of study which was planned to prepare the student for home making. In many of these schools, however, the ideal was not very clearly defined and so there was frequently a combination of the home-making school with the training in those women's trades that have grown out of the occupation of home making. The idea was more largely a preparation for wage earning than a preparation for the occupation of home making. Only in a very few States was there special legislation for a type of home-making school which was based upon the principles enunciated in the vocational education act. There were a number of evening classes in millinery, dressmaking, and cooking, but there was no general program for the development of such classes as an important part of the school work.

State supervision of home economics was not very well developed. The work in the States was generally supervised by one of the high-school inspectors, rural supervisors, or some assistant in the employ of the State board. The supervisor was often a man with practically no knowledge of home economics which would qualify him to pass on the quality of instruction, the equipment, or to render the much-needed assistance to the inexperienced teacher. There were only six States with full-time supervisors who were well prepared to do the work required in the States. In very few of the States was there a State course of study for home economics or generally accepted standards for the work. The instruction given in the various communities depended largely upon the teacher in charge of the work and too frequently it was not deserving of credit nor was it accepted as college entrance.

Many of the colleges of the country were offering excellent courses in home economics as a part of their four-year college course and much good teacher-training work was being done. Practically every State had one or more institutions which were training teachers of home economics. In a number of the States this work was up to a high standard, for with the impetus of Federal grants to agricultural colleges strong faculties and well equipped departments had been

established. The teacher-training institutions, however, varied in the quality of work done and the length of the courses offered. In some of the States but two years of normal-school work was given as preparation for the teacher of home economics, while some of the best technical schools, which trained a large number of the teachers, offered three years of work. In many States there was no close connection between the teacher-training institutions and the State boards of education. The teacher-training institutions prepared teachers in the way in which they saw fit to do so according to their staff and their resources. The qualifications for teachers of home economics varied in the States from one summer's preparation to graduation from a four years' course in home economics, for in many States there is no requirement for special certification of teachers of home economics by the State board of education.

INTERPRETATION OF PRINCIPLES OF HOME ECONOMICS EDUCATION AS PROVIDED IN THE SMITH-HUGHES ACT.

Due to the fact that home economics education as vocational education is essentially a new form of education, and that even in the States granting aid for instruction in home making, relatively few schools have been established and maintained under conditions similar to those prescribed in this law, it is necessary to clearly set up the fundamental principles upon which this type of work is to be developed under the vocational education act.

1. Conditions and standards set up by the vocational education act which apply to all-day schools or classes.

Age of admission.—The minimum age required for admission to vocational day schools is 14 years. Home economics instruction may be given either in the upper grades of the elementary school, in the high school, or in separate schools or classes, provided the instruction is designed to meet the needs of persons of over 14 years of age. For some it would mean vocational education of secondary grade based upon completion of the elementary school; for others it would mean vocational education for girls of secondary age based upon the educational experience of at least the fifth or sixth grade. This would be education essentially secondary in character in its vocational aspects but not necessarily of secondary grade.

This interpretation would make way for the organization of vocational day schools, classes, and departments open to girls 14 years of age who have not completed the elementary schools as well as to girls who are in secondary schools. It is undoubtedly the intent of the law to provide for vocational education suited to secondary school age, not necessarily to secondary school grade. Furthermore, it is the experience of the States maintaining vocational education in home economics that girls of less than secondary school age are seldom of

the size or maturity to enable them to profit adequately from instruction of the vocational type.

Equipment and maintenance.—It is required that before work in the schools can be approved satisfactory provision must be made for adequate laboratory facilities and for maintenance, so that the work undertaken may be given as nearly as possible under conditions which will enable the courses to function in the work of the home.

Course of study.—Home economics education demands special courses of study, appropriate methods of instruction, and special qualifications on the part of teachers. The guiding principles to be used in formulating such courses of study are certain established principles of vocational education applied to the field of home economics education. These are: (a) The controlling factor in determining the subjects to be included in the course of study designed as preparation for an occupation must be the vocational needs of the persons who are to follow the occupation; (b) the central feature of such a course of study must be a group of so-called technical or home economics subjects designed to meet the special needs of the special group; (c) this group of home economics subjects must be supported and supplemented by a group of related subjects; (d) certain subjects from general education are needed to complete a well-rounded course of study. These are denominated nonvocational subjects. A course of study designed for vocational home economics education is therefore divided into three groups: Technical or home economics subjects, related subjects, and nonvocational subjects. The home economics subjects and the related subjects are together called vocational subjects.

In planning a course of study which will prepare for any given occupation the vocational subjects to be selected should be determined by an analysis of the occupation. The first step, therefore, in determining the content of a course of study which will fit the student for the occupation of home making is an analysis of the occupation of home making. Home making is a composite occupation made up of a number of skilled but undifferentiated occupations. In addition to this, home making is both a social and a business enterprise. Under ordinary circumstances the efficient home maker must be a reasonably skilled worker in at least four or five skilled occupations. Under emergency conditions this number may be greatly increased. In addition she is usually joint owner and manager of the whole enterprise. Hence she must be skilled in household management. The duties of the home maker as a skilled worker and as a manager so overlap that they can not be entirely disassociated.

Qualifications of teachers.—The demands of instruction in home economics subjects are superior skill in the household occupation and an understanding of the significance and of the demands of the vocation of home making; knowledge in the field of home economics and

in related fields of science and of art; an ability to teach, using the methods of instruction adapted to this form of vocational education. Such qualifications can only be secured through experience and through special preparation. It is difficult to determine the amount and character of vocational experience necessary to develop the degree and variety of skills essential to an appreciation of workmanship, in the household occupation, or to furnish a basic fund of knowledge essential to a feeling for the occupation and to an understanding of its needs and responsibilities. Nearly all girls grow up in some sort of a home. Whether they participate in the household occupations or not they have, as it were, the atmosphere of the occupation and at least a superficial understanding of its needs and responsibilities. Moreover, a very large proportion of girls participate in the work of the home. It would, therefore, seem reasonable to assume that, as compared with industrial education, a shorter period of actual participation in the household occupations should be required to provide the necessary contact with the vocation. In this assumption it is understood that the participation in the occupation involves a wide variety of experience and all-round responsibility for management.

Training in home economics which is accepted as the qualification for teachers of home economic subjects is the course in home economics given in a two-year—preferably four-year—college course designed to give special preparation for teaching the vocation of home making.

Such a course must be made up not only of technical work in home economic subjects, but these must be strengthened and supported by prerequisite or parallel courses in science and art. The home economic subjects in such a course include food study and cookery, dietetics, home management, house planning, textiles, dressmaking, etc., and the related science and art includes chemistry, physiology, bacteriology, drawing and design, etc.

In no case should a teacher qualify as a vocational teacher who has not had an all-round course in home making, even though the class work is so divided that only one phase of home making, clothing, or food preparation is taught by each teacher.

Professional training includes a group of so-called professional courses—courses in education. In the case of students of home economics this group of courses is not a part of the regular home economics curriculum, but comprises the group of teacher-training courses offered for students who are preparing to become teachers. The courses offered as a basis for certification vary in the different States both in character and in extent. Everywhere, however, they include certain general courses in education and special courses for special groups of students, together with experience in teaching, which is called practice or student teaching.

2. Conditions and standards set up by the vocational education act which apply to part-time and evening schools and classes.

For the development of part-time instruction, the vocational education act provides for cooperation between the Federal Government and the States in promoting education for various groups of persons of over 14 years of age who have entered upon employment and are released during regular working hours for instruction purposes. There are various types of part-time classes depending upon whether the student is given instruction in the work in which he is already employed or is given instruction in some new type of work, or whether the instruction is given only in subjects which will enlarge the civic or vocational intelligence of the young worker. From the standpoint of home economics part-time instruction, all instruction is supplementary to at least a part of the daily employment of the average girl or woman, since it may be safely assumed that practically every girl or woman has household duties of some sort or another as a part of her daily employment. Therefore, all instruction given will be such as will extend this knowledge of home making. There may be home-making schools in which all of the 144 hours is devoted to home-making subjects or there may be home-making schools in which half the time is given to instruction in home-making subjects and half the time is given to subjects which will more directly increase the civic intelligence of the student, such as English, elementary mathematics, civics. The definite requirements for part-time education, as set up by the law and as interpreted by the policy of the Federal Board, are that such instruction must be provided for a minimum of 144 hours a year; that adequate plant and equipment must be provided; that a course of study fitted to the needs of the group to be reached is outlined by the State board and approved by the Federal Board, and that teachers who are well qualified and who are in sympathy with part-time instruction must be employed to carry out this work.

For evening instruction provision is made that such instruction shall be open to students over 16 years of age. Such classes must be held outside of the regular working hours of the day. For groups of housekeepers such classes may be held in the afternoon, as it is understood that these women have duties in the evening.

Evening school is not a new type of school in this country. Wherever the work has failed to function effectively as an agent in vocational education it has been largely due to the fact that the same principles and methods have been applied here as in other types of schools, whereas the purpose and aim of the work, as well as the class of students, have been very different. The efficiency test of an evening school must be stated not in terms of the large numbers of students induced to enroll, but the stability of the classes, the per-

manency of class membership, and the number and kind of new recruits. It is important, therefore, that adequate equipment and maintenance be provided for this work, as well as that the teacher shall be trained and in sympathy with the ideals of evening school instruction.

3. Conditions and standards set up by the vocational education act which apply to supervision.

If supervision is to function in the scheme of vocational education, a definite plan for supervision must be outlined. Such a plan should include the general inspection work, ordinarily understood as supervision, as well as suggestions for the improvement of the teachers in the school. Qualifications for the supervisor should be such that in all cases the supervisor of home economics in a State is better qualified than are the teachers of home economics in that State.

4. Conditions and standards set up by the vocational-education act which apply to teacher training.

The teacher training must be under the supervision of the State board, the institution or institutions selected to carry on the work of the training of teachers should be adequately qualified both in ideals, teacher-training staff, and equipment, to provide the type of instruction and the vocational experience essential in the training of home-economics teachers.

WORK ACCOMPLISHED DURING 1917-18.

At the end of the first fiscal year we find that 48 States accepted the provisions of the act and that in all of the States there has been some vocational home economics work. The chief effort was to develop the work in the all-day school. In many of the States, as has been suggested, home economics was well established, but a half day of practical work was not being given to the subject in the schools. Courses of study were outlined showing two general programs for the half day of practical work. One in which the half day is devoted entirely to home-making subjects, the other in which the half day is devoted to home economics and the related art and science subjects. The home-making subjects have been fairly well taught, although the connection between the school work and the home work of the pupil needed to be stressed. The development of the home project idea was encouraged. The important piece of work done was to convince the school men that a half day was none too much to require for the training of a home maker and that the home-making subjects should be strengthened and supported by the fundamental science and art courses. There is comparatively little science which is really related science being taught in the country, as is

there also very little art being taught which is related to the home. The development of such courses was encouraged everywhere. The curriculum as given in many of the secondary schools was modified so that the so-called domestic science and domestic art work was developed into one course of home economics and the scope of the work was extended so as to include more of the home-making activities, home management, home nursing, child care, house planning and furnishing, as well as work in food preparation, garment making, and millinery. The laboratory facilities and equipment were increased so as to provide for the expanding program of home economics, as well as the closely related science and art instruction.

Part-time and evening work was forwarded to some extent, but it seemed wisest first of all to develop the type of instruction which was best known and which was more general throughout the country. With the establishment of good vocational departments in every State, the large groups of students of over 14 years of age who are in school would be reached by good home-making courses.

Adequate supervision of home-economics work has been demanded. It was clearly brought to the attention of the State boards that no work could develop satisfactorily within a State unless such was furthered by a State supervisor. At the end of the year there was a supervisor in 31 States. Such a supervisor is either a permanent member of the staff of the State board of education or loaned to the State board for part time by the teacher-training institution within the State. This greatly strengthened the work and was one of the large contributions made by the passage of the vocational-education act.

The appointment of a State supervisor means that a unity of interest will result. It will tend to set up the highest standard possible within the State and then will bring this up at least to the average of the standards in other States. The need for this level upward has long been felt where poor conditions have been tolerated because they were no worse, or a little better, than the general conditions in that State or section.

The setting up of a common standard in the vocational home economics schools and classes will react upon all the instruction in home economics within the State since the selection of the material and method is based upon its contributions to a universally designed aim—the training of home makers.

As was stated, there were in many States good departments of home economics in the State universities and agricultural colleges. Most of these institutions were giving the course as a part of the four-year college course leading to a college degree. In some parts of the country, especially where there were no coeducational institutions, the work was not of so high a grade, but was often given as a part

of a two-year normal course. In the pursuance of the plans and policies of the Federal board all States were encouraged to establish a well-rounded four-year course designed for the training of home economics teachers.

The main strength of the teacher-training institutions was their technical home economics and science instruction. The effort throughout the country was made to strengthen the special methods work in the teaching of home economics, the practice teaching in home economics, and the provision for vocational experience. Few of the institutions made any attempt to check up the vocational experience of their students on entering college, nor did they provide an opportunity to further extend this experience during their college course. The institutions were weak in the matter of courses in child care. At the end of this year a large number of institutions had increased the time spent in their methods courses, had increased their provision for practice teaching to a minimum of eight weeks of three hours each, and had provided supervised home management in a home of some sort provided for this purpose. Many of the two-year institutions had added a third year to their teacher-training courses, and only in one State where there was a two-year course was there no provision made for extending this to a four-year course by 1920.

For the first time the teacher-training institutions were asked to analyze the vocation of home making and to offer courses which would train teachers of home making within their State. With the recognition of home making as a vocation has come the recognition of the need of clearly analyzing the vocation, if that instruction which will provide this essential training is to be outlined. The State boards and the teacher-training institutions have grown closer together. There has been developed a more genuine appreciation of the fact that the teacher-training institutions were preparing teachers who would satisfactorily meet the needs of the home makers of the State. Such a point of view has developed the spirit of community helpfulness which is essential if education is to function, and to reach every girl and woman who needs and desires training in home making.

COMMERCIAL EDUCATION.

While commercial education is probably the oldest form of vocational training in this country, it has been so closely identified with the academic courses in public high schools during the past 30 years that its vocational aspect has been lost sight of to a large extent. In no State is this kind of training receiving the consideration it deserves at the hands of vocational administrators. Over 600,000 boys and girls in private and public schools in this country are pur-

suings commercial courses, and it is certain that the actual needs of only a few of these boys and girls are being met, owing to the rather limited scope of the traditional commercial course.

Two occupations, bookkeeping and stenography, have for a long time dominated the field of commercial education to the entire neglect of the many other commercial occupations for which training is necessary.

Important changes in the administration and conduct of education for business are necessary if the requirements of commerce are to be met and the best interests of our boys and girls are to be conserved.

The States are confronted with many problems connected with the reorganization of commercial courses in both public and private schools and the extension of facilities for giving the right kind of training for commercial occupations to the various types of young people who desire it. While no funds were appropriated by the vocational education act to stimulate commercial education, definite provision was made for aiding the States in the solution of these very important problems relating to better training for the occupations commonly classified as "commercial."

In section 6 of the act the Federal Board for Vocational Education is required "to make, or cause to have made, studies, investigations, and reports, *with particular reference to their use in aiding the States in the establishment of vocational schools and classes and in giving instruction in . . . commerce and commercial pursuits . . .* Such studies, investigations, and reports shall include . . . *commerce and commercial pursuits* and requirements upon *commercial workers . . .* and problems of administration of *vocational schools* and of courses of study and instruction in *vocational subjects*."

In the fulfillment of its duty the Federal Board for Vocational Education has appointed an assistant director for commercial education and is making very thorough studies in the various phases of commercial education, to the end that the States may be aided in giving instruction in this great field of vocational training.

The following problems of commercial education are recognized as among those requiring immediate attention and the help of the Federal Board in their solution:

NECESSITY FOR PROVIDING COMPETENT STATE SUPERVISION.

In only one State is a specialist in this field employed by the State department of public instruction. Since one-fourth of all the students enrolled in the high schools of the country are taking commercial courses, it is very important that better supervision of this

kind of training be made available in all the States. The Federal Board for Vocational Education plans to bring about this result by showing conclusively through its published bulletins and field work that such supervision and direction are necessary to safeguard the interests of the hundreds of thousands of young people interested in this kind of vocational training.

ESTABLISHMENT OF MORE AND BETTER COMMERCIAL TEACHER-TRAINING FACILITIES.

Only seven States provide for the training of commercial teachers in institutions conducted under State control. Even in some of these State schools where commercial teachers are trained the courses fall far short of what is required to prepare teachers competent to handle the newer courses in commercial education as distinguished from those organized in conformity with the earlier and narrower conceptions of this type of training. The Federal Board for Vocational Education is planning to point the way for the establishment of better commercial teacher-training courses by field work and through its publications, and there is every indication that the States will welcome help in this field.

ESTABLISHMENT OF A BETTER TYPE OF ELEMENTARY COMMERCIAL EDUCATION.

In a large number of newly organized junior high schools there is being offered a type of commercial training which is unsound not only from the viewpoint of the general educator but also from that of the vocational educator. In the great majority of such schools the elementary commercial course is identical, so far as it goes, with the earlier years of the commercial course of the upper high school. In fact, the senior high school commercial course has been brought down into the lower school, without regard to whether or not it meets the needs of the boys or girls who are permitted to take it. This practice results in giving immature pupils in such schools training for vocations that can not be entered successfully by such young people. The Federal Board for Vocational Education is actively promoting a plan for providing boys and girls of any given age who want vocational commercial education only the kind of training that will fit them for positions to which they may aspire with reasonable hope of success. A bulletin dealing with this phase of business training is in preparation and will soon be issued. Evidence is plentiful that the Board's lead in this matter will be followed by those who have to do with the organization of such courses.

DIFFERENTIATED HIGH SCHOOL COMMERCIAL COURSES.

In the high schools generally throughout the country commercial courses have not been organized with definite vocational purposes in mind. Such courses have often represented merely the grouping of more or less vaguely related academic and commercial studies, without in any degree securing that unity necessary in any effective system of education. The Federal Board for Vocational Education believes that a full four-year curriculum of commercial training can be organized in such a way as to safeguard the needs of all students who enter the high schools, regardless of whether they have a long or short period in which to secure their training for business, and at the same time encourage the largest possible number to continue their education at least to the end of the four-year high-school course. A bulletin dealing with the organization of such a course is in preparation and will clearly show just how these two desirable results can be accomplished by the organization of a course of study that is properly graded from the first year to the last.

PART-TIME COMMERCIAL EDUCATION.

It is just as important in commercial education as it is in any other type of vocational training that the pupil shall have contact with the occupation for which he is preparing during the period of preparation. Notwithstanding this fact, practically all commercial courses have been organized without regard for this need. The Federal Board for Vocational Education is pointing the way toward a better type of cooperative and part-time commercial education, not only for those who are enrolled as students in high school commercial courses, but also for those who already have entered employment in the lower positions in business offices without first having secured the necessary education to enable them to advance to the higher places. Such part-time courses will be outlined for those who are engaged in retail selling, clerical, typewriting, bookkeeping, and other commercial occupations.

PROMOTION OF RETAIL SELLING AND MERCHANDISE COURSES.

Since there are more people engaged in the retail industry than are to be found in office positions, it is quite important that training for the retail business should be given in well-organized commercial departments in the larger cities. To direct attention to this need the Federal Board for Vocational Education has published a bulletin dealing with retail-selling education. This bulletin outlines courses of study for high schools, for department stores, for evening school extension courses, for part-time continuation courses, and for teacher-

training schools. Complete information is given as to how such courses can be organized, as to what these courses should cover, and as to what material is available for use in giving instruction in the art of retail selling. About 25 cities are already interested in this phase of commercial education, and many of them have organized classes in their public high schools. The Federal board is cooperating with these and other cities in their efforts to make this new type of training worth while. It is the Board's intention to follow up this bulletin with such field work as is necessary to insure the right kind of a start in the rapid development of education for retail selling and general store service.

OTHER ADVANCED COMMERCIAL COURSES.

Courses in outside selling, advertising, business organization, and management are also among the newer types of commercial courses that should be added to the commercial curricula of the four-year type. In other words, differentiated commercial courses, based upon vocational needs and suited to the ages and abilities of different pupils, must be provided if the full vocational possibilities of this phase of education are to be realized. Interest can be stimulated in these newer phases of commercial training by propaganda in the form of bulletins and circulars and by field work through competent representatives of the Federal Board.

EDUCATION FOR FOREIGN TRADE.

The great world-war has brought about a new condition in the matter of foreign trade. American manufacturers and merchants not only are alive to the possibilities of such trade, but also fully intend to enter the foreign field immediately at the close of the war. Their foreign trade development is already creating a demand for young men who have been trained in foreign trade for service both at home and abroad. Up to the present time no effective means has been found to interest young men in training that will fit them for service in the foreign trade department of American business houses. The Board has appointed a special agent in foreign trade as one of the assistants in the commercial education department, and much progress has been made in the development of better training for this kind of service. Working relations have been established between the Bureau of Foreign and Domestic Commerce of the Department of Commerce, the United States Shipping Board, the Manufacturers' Association, and various other business organizations interested in this field of education. A bulletin dealing with this subject and outlining courses has been prepared by the Board. A reading

course in foreign trade and a course in foreign trade documents have been prepared through the joint efforts of the Federal Board for Vocational Education and the Bureau of Foreign and Domestic Commerce. Other instruction material is in course of preparation and will shortly be available for the schools desiring to give instruction to young men who are interested in foreign trade positions. The Federal Board has already taken steps to organize in a few of the principal foreign trade centers of the United States classes on a part-time basis for young men and women who are already employed by houses engaged in trade with foreign countries. When complete courses have been worked out in these few centers it is certain that other cities interested in this field will take up the work and help to make it as extensive as the conditions of such trade will justify. A special working arrangement has been entered into by the Federal Board and the United States Shipping Board whereby the former's specialist in foreign trade education will cooperate with the latter in the preparation of courses which are required for giving-instruction in the shore end of the shipping business. These courses are to be published by the Federal Board as soon as they are completed. Field work will follow their publication, and part-time courses will be established in existing or newly organized schools.

STANDARDIZATION OF TECHNICAL COMMERCIAL SUBJECTS.

Since there has been no State or Federal supervision of high-school commercial departments it is only natural that the commercial subjects have not been standardized to a point where they command the same recognition as is accorded academic subjects of similar importance. The Federal Board is gathering all the information it can regarding the essential content of the various commercial subjects, with a view to standardizing courses in these subjects so that inexperienced teachers may be less at the mercy of the textbook writers with widely differing ideas regarding textbook requirements.

MODIFICATION OF RELATED ACADEMIC SUBJECTS.

High-school pupils who are preparing for business should receive in addition to instruction in the technical commercial subjects some general education, including science, history, and modern language. It has been difficult to get such a modification of content and teaching method in presenting these subjects to commercial groups as would not only arouse and hold the pupil's interest, but also give to them a functional value in their business vocation. The requirements of the colleges in these matters have controlled in the great majority of high schools, and since the college preparatory student

is concerned in these subjects only as necessary foundations for the collegiate work in similar branches the courses are adequate to his needs. The commercial student who is required to take the same courses in building an educational foundation for a superstructure that will never be reared and is missing a practical training in science, history, and language that would be of great value to him in business. The Federal Board plans to secure more freedom in the development of better related academic courses. Up to the present time history, science, general mathematics, and foreign language have all been taught without reference to vocational needs. If the pupil can be made to see the relation between his science and the vocation for which he is preparing, he is sure to take more interest in his work and to reap a greater benefit from it.

MORE CONSIDERATION FOR LOCAL NEEDS.

Commercial courses have been more or less uniform throughout the country, and local needs have played a small part in their organization. This condition has resulted largely from a lack of contact with the local business interests. The Federal Board is taking steps to secure a closer cooperation between business men and commercial educators not only in the organization of commercial courses, but also in their conduct. The development of differentiated academic work referred to in problem No. 10 will aid in the solution of this problem as it will give the commercial director a larger control of the time of the commercial pupils who will be scheduled in classes by themselves. They can be called together at convenient times for talks by local business men and others. Special activities of interest to commercial students, such as industrial expositions, chamber of commerce meetings, "ad-club" activities, etc., may be made available to them. Plans for utilizing all such business agencies in giving commercial training will be prepared and distributed by the Board.

ADVANCED BUSINESS EDUCATION.

Advanced courses in business have been organized during the past few years by some of the more progressive colleges and universities. This field of training has, however, just been opened up and many problems connected with it remain to be solved. In many colleges the business courses show that the mistakes of the high schools are being repeated. A group of electives, usually drawn from the department of economics, is offered as advanced business training. The same differentiation and adaptation to vocational needs are required in this field as are recognized as essential in secondary education, and the Federal Board plans to help in the more effective development of this type of training for business. It has in preparation a bulletin dealing

with what has been called a new profession—commercial engineering. This bulletin will indicate the need for men who are not only trained as engineers, but who have had the business training which is absolutely necessary to enable them to take charge of engineering enterprises as chief executives. It will also outline courses of study and subject matter content. The general benefits that will result to business from the development of this new commercial vocation will be very large and the Federal Board intends to give publicity to what is being done along this line and to utilize all its facilities in the extension of opportunities for getting this kind of training.

STATE ORGANIZATION OF COMMERCIAL EDUCATION.

At the present time commercial education is not under the control of the State vocational boards. It is largely in the hands of those who administer the academic courses. To develop this type of training along lines that have been pointed out in this report it is necessary to bring it under the control of the vocational department to the extent that definite vocational training is contemplated.

The Federal Board for Vocational Education has been called upon by several States to assist in the preparation of a new vocational education law that will comprehend commercial education. Two of the leading States have already drafted such a law providing for a specialist in commercial education in the vocational education division, whose duty it will be to supervise and direct all activities in this field of education. There is every indication that the other States will follow the lead of these two in this respect and that at an early date the Federal Board will be able to deal with States in matters pertaining to commercial education through the vocational education board and its specialist in this field.

EVENING SCHOOL COMMERCIAL EDUCATION.

Evening school commercial training is not at present on a satisfactory basis. It should be entirely reorganized on the basis of part-time extension and part-time preparatory educational needs. Unit courses designed to meet specific vocational needs are required.

The Federal Board has been called upon to cooperate with directors of this work in the reorganization of the commercial courses, and a plan for such reorganization on a unit basis has been prepared. If these reorganized courses are as successful as the Board has reason to believe they will be, it is quite likely that the plan will be adopted by evening school systems quite generally. Through the field representatives of the Federal Board much improvement in the present working methods of evening school instruction will be accomplished.

PUBLICATIONS.

The following is a list of publications of the Federal Board for Vocational Education, including the bulletins now in preparation or in press:

ANNUAL REPORT OF THE FEDERAL BOARD FOR VOCATIONAL EDUCATION.

This report covers the period from July to December, 1917. All preliminary work of organization, appointment of the board, staff, etc., conferences with State officials, examination of State plans, and arrangements for regional administration are described. Cooperation with other Government departments in the matter of training conscripted men is dealt with in detail and a list of studies and investigations in progress is given. A table of allotments of funds to States is also contained in the report. Under the heading "Response of States to the Smith-Hughes Act" the action taken by the States up to the time of the publication of the report is shown.

BULLETIN NO. 1.—STATEMENT OF POLICIES.

All policies outlined in Bulletin No. 1 refer to the administration of the Smith-Hughes Act by the Federal Board. This bulletin is divided into two parts. Part I contains general administrative policies, such as relate to the State boards in general, the distribution of the Federal money, standards, supervision, etc. Part II gives the policies in the form of questions and answers (1) of a general nature, (2) in relation to agricultural education, (3) in relation to industrial education, (4) in relation to home-economics education. The text of the Smith-Hughes Act is given and the legal requirements imposed by it on the States, the Federal Board, the Secretary of the Treasury, and the State boards. There are three tables showing the allotments to the States arranged by regions, by years, and by quarterly payments.

BULLETIN NO. 2.—FOR USE IN TRAINING CONSCRIPTED MEN FOR SERVICE AS RADIO AND BUZZER OPERATORS (INTERNATIONAL CODE) IN THE UNITED STATES ARMY.

This bulletin was first published as Circular of Information No. 1. It gives information regarding the enrollment, equipment necessary, course of study, standards, certificates, and general management of the classes for radio and buzzer operators to be used in guiding school authorities undertaking this work. Supplementary material may be found in Bulletin No. 16.

BULLETIN NO. 3.—EMERGENCY TRAINING IN SHIPBUILDING, EVENING AND PART-TIME CLASSES FOR SHIPYARD WORKERS.

This bulletin is divided into three parts. Part I gives instructions and suggestions to school officials, so that they may conduct evening or part-time classes to assist in the training of men for employment in shipyards. Information in regard to the classes of men to be trained, kind of classes to be given, reports, certificates, etc., is furnished. Part II contains a table giving summary of shipbuilding and kindred trades. There is a description of three classes of shipbuilding trades: (1) Trades to which there is no corresponding outside trade, (2) trades in which there is a corresponding trade, and (3) trades into which outside craftsmen may enroll without special training. Part III is made up of courses of study, suggestions for general lines to be followed in classes, a glossary of terms and tables of analyses of trades, giving necessary qualifications, comparisons with other trades, etc.

BULLETIN NO. 4.—MECHANICAL AND TECHNICAL TRAINING FOR CONSCRIPTED MEN (AIR DIVISION, UNITED STATES SIGNAL CORPS).

This bulletin is divided into two parts. In Part I is found general information in regard to the enrollment, certificates, records, teachers, etc., in classes for training conscripted men. This training was organized and supervised throughout the country by the Federal Board at the request of the War Department. Part II contains courses of study for mechanics and technicians needed by the Aviation Service. It comprises cabinetmakers and carpenters, chauffeurs, coppersmiths, and metals workers, motor repairmen, instrument repairmen, ignition and magneto repairmen, and welders. Appendix A comprises a letter of authorization by The Adjutant General to the commanding generals of all departments.

BULLETIN NO. 5.—VOCATIONAL REHABILITATION OF DISABLED SOLDIERS AND SAILORS—A PRELIMINARY STUDY.

This bulletin gives the experience of foreign nations in the vocational rehabilitation of disabled soldiers and sailors and general principles and policies toward which this experience points as a basis for any program of Federal action. Part I takes up general principles and policies, such as cost, public support, public versus private control, military discipline, etc. Part II gives a sketch of foreign legislation and experience in England, France, Canada, Belgium, Australia, Italy, South Africa, Newfoundland, India, and New Zealand. Part III deals with factors to be taken into consideration in estimating the number that will require vocational reeducation.

Part IV is an outline for an exhaustive study and report on the whole subject of reeducation. A bibliography of the war cripple is given in Part V. Also published as Senate Document No. 166.

BULLETIN NO. 6.—TRAINING OF TEACHERS FOR OCCUPATIONAL THERAPY
FOR THE REHABILITATION OF DISABLED SOLDIERS AND SAILORS.

This bulletin takes up the problem of the training of teachers for occupational therapy in Part I. A course of study is given and the necessary qualifications for teachers for directing occupational therapy and for vocational education are indicated. Part II takes up the functions of occupational therapy, psychological and physiological, and discusses the present field of occupational therapy. Part III contains the social and economic aspects of occupational therapy. The contributions of the vocational expert are given and his duties described. The last few pages are devoted to blanks for use in the hospital, curative workshop, and vocational school.

BULLETIN NO. 7.—EMERGENCY WAR TRAINING FOR MOTOR-TRUCK DRIVERS
AND CHAUFFEURS.

This is the third bulletin prepared for the training of conscripted men. After a general introduction giving the qualifications for admission to classes, qualifications of instructors, equipment, etc., three courses are outlined: Unit A-1, classroom instruction; Unit A-2, shop-work; and Unit A-3, driving. The equipment and material necessary for a unit of 24 men is indicated and there are 570 test questions for the use of the instructors.

BULLETIN NO. 8.—EMERGENCY WAR TRAINING FOR MACHINE-SHOP OCCU-
PATIONS, BLACKSMITHING, SHEET-METAL WORKING, AND PIPE FITTING.

This bulletin is preceded, as are all the emergency war-training bulletins, by a general description of the purpose, qualifications for admission to classes, duration of course, etc. The courses for machine operators are divided as follows: Lathe work, Unit M-1-4; drill-press work, Unit M-21-22; planer work, Unit M-31-32; shaper, Unit M-41; grinding, Unit M-51-53; milling-machine work, M-61-81; bench work, Unit M-91-96; courses for toolmaking, Unit M-101-102; courses for blacksmithing, Unit B-1-5; courses for sheet-metal working, Unit S-1-4; course for pipe fitters, Unit P-1. The equipment necessary for the courses is described.

BULLETIN NO. 9.—EMERGENCY WAR TRAINING FOR ELECTRICIANS, TELE-
PHONE REPAIR MEN, LINEMEN, AND CABLE SPLICERS.

This bulletin, after the usual introduction in regard to the qualifications of instructors, equipment necessary, etc., outlines the courses

as follows: Electricians, Unit E-1-4; telephone men, Unit E-5-7. Unit E-5 is for repair of telephone lines, Unit E-6 for repair of magneto telephone apparatus, and Unit E-7 for cable splicing. Tools and equipment necessary are given in each case.

BULLETIN NO. 10.—EMERGENCY WAR TRAINING FOR GAS-ENGINE, MOTOR-CAR, AND MOTOR-CYCLE REPAIR MEN.

This bulletin is another in the series for the training of conscripted men. After a general introduction giving the qualifications for admission to classes, qualifications of instructors, equipment, etc., five courses are outlined—one for chassis repair men, one for engine repair men, one for carburetor specialists, one for ignition specialists, and one for lighting and starting specialists. In addition there are suggestions for equipment and a series of test questions for the use of instructors.

BULLETIN NO. 11.—EMERGENCY WAR TRAINING FOR OXY-ACETYLENE WELDERS.

This bulletin is devoted to the training of conscripted men as oxy-acetylene welders. It consists of a review of the oxy-acetylene process with particular reference to its military application in the United States and other countries. Courses for welding and cutting are outlined with full directions for use of instructors.

BULLETIN NO. 12.—EMERGENCY WAR TRAINING FOR AIRPLANE MECHANICS, ENGINE REPAIR MEN, WOODWORKERS, RIGGERS, AND SHEET-METAL WORKERS.

This bulletin is similar in purpose to the other bulletins in the war training series. It contains a course on airplane construction and nomenclature, a course on the materials used in airplane construction, a course on the construction of the principal parts of airplanes, courses in shopwork, and a list of test questions. The publication is amply illustrated with shop drawings and diagrams.

BULLETIN NO. 13.—AGRICULTURAL SERIES NO. 1—AGRICULTURAL EDUCATION, ORGANIZATION, AND ADMINISTRATION.

This bulletin analyzes the Smith-Hughes Act in so far as it relates to agricultural education. The contents include requirements of the vocational act as relating to agriculture, plans for the training of teachers, and a review of cooperation in three agreements between the Federal board, the Department of Agriculture, and the Bureau of Education; and an appendix containing statistical tables, showing grants under the act.

BULLETIN NO. 14.—AGRICULTURAL SERIES NO. 2.—REFERENCE MATERIAL
FOR VOCATIONAL AGRICULTURAL INSTRUCTION.

Teaching vocational agriculture in country and village schools has created a great demand for material for such instruction. By the provisions of the Smith-Hughes Act the Federal Board for Vocational Education is charged with the duty of making or causing to be made investigations and reports which will aid State agricultural training. The purpose of this bulletin is to guide in the selection of such publications of certain Government departments as will be of most service in promoting agricultural education. It points out the best methods of arranging the material in schools that have no library in which it may be catalogued and filed. It also describes the way in which these bulletins, reports, and circulars may be obtained from the departments.

BULLETIN NO. 15.—REEDUCATION SERIES NO. 3.—THE EVOLUTION OF NA-
TIONAL SYSTEMS OF VOCATIONAL REEDUCATION FOR DISABLED SOLDIERS
AND SAILORS.

The bulletin is a volume of 320 pages illustrated with many photographs showing progress made in other countries in refitting men to take up again the battle of civil existence. It shows how science and the wonders of specialized reeducation are able to neutralize what would otherwise be serious handicaps that would place the subjects thereof in the category of human junk.

It is a most inspiring message of hope and confidence to every man who is in the armed forces, and those subject to call, and the families and relatives of all of these men. It assuredly dispels any fear that a man may have of becoming a wounded or decrepit burden, either upon society, the State, or his relatives. Mere remnants of men are shown who have been turned into useful wage-earning, self-supporting, and self-respecting citizens who supplement their pensions with well-paid labor, and in many instances have larger revenues than before being injured.

The volume deals with the subject of rehabilitation generally, its principles, the attitude of the public toward the disabled man, and the outlook and viewpoint of the men themselves. It then takes up the various countries—France, Belgium, Great Britain, Italy, Germany, Austria-Hungary, Canada, and other British dominions.

BULLETIN NO. 16.—EMERGENCY WAR TRAINING FOR RADIO MECHANICS AND
RADIO OPERATORS.

The need for mechanics and technicians in the Army has called out the effort of American schools in this direction. In order to be of service in this emergency the Federal board issued this bulletin

to aid the schools in carrying out this work with reference to radio operators and radio mechanics.

Part I of the bulletin treats of the technical side of radio work and gives a course in radio mechanics. Its purpose is to train selected men in the fundamental principles which underlie the operation of radio mechanics.

Part II supplements a former bulletin (No. 2) and contains much additional information in the way of plans that have been worked out by a number of schools where this training has been given. It outlines a course of training for radio operators and includes a valuable list of sample telegrams taken from Signal Corps practice.

Army officers have approved of both courses as conforming to Army standards.

BULLETIN NO. 17.—TRADE AND INDUSTRIAL SERIES NO. 1.—TRADE AND INDUSTRIAL EDUCATION—ORGANIZATION AND ADMINISTRATION.

This bulletin deals with the organization and administration of the five types of schools which are authorized to give instruction known as trade and industrial education.

In Part I State and local boards will find a clearly stated interpretation of this type of education, with suggestions as to the proper methods of establishing such types of schools as will be in accord with the views of the Federal Board. The text of the bulletin will also be of great assistance in teachers' training, while employers and employees, chambers of commerce, educational associations, and all interested in vocational training will find valuable information in it.

The three steps necessary to set up a program for trade and industrial schools—acceptance of the Federal act by the States, adoption of a plan by the State board designated in the State's acceptance, and approval of the plan by the Federal Board—are fully discussed. The individuality necessary for the State plans is determined by the special industrial needs of each State. Certain features are fixed, but much latitude is allowed State boards in setting up their own plans for industrial education, which, to be efficient, must be based on continuous industrial surveys.

The legal provisions to be observed in order for these trade and industrial schools, or classes, to obtain Federal aid are stated, and the confusion of terms in the selection of the proper name for these schools is made clear.

With careful attention to details the bulletin differentiates between the kinds of equipment, the character and content of the courses, the qualifications of teachers, both in shop work and general subjects, the cost of maintenance needed in the various types of trade and industrial schools.

All-day trade or industrial schools are dealt with in Part II. The unit trade school and the general industrial trade school belong to this type. Part III outlines the requirements for the group which constitutes the part-time schools or classes. This includes trade extension part-time schools or classes, trade preparatory part-time schools or classes, and general continuation part-time schools or classes. The evening industrial schools are discussed in Part IV.

The necessity for vocational schools has arisen from the fact that whereas formerly men learned vocations by entering them, modern industrial life no longer provides opportunities for efficient training, therefore the obligation devolves upon the State.

The demands of two groups must be satisfied, first, the public-school pupils preparing to enter a particular trade, and, second, workers already in employment. Hence the need of the different types of vocational school.

The appendices contain the outlines for plans of several States, and while one State is urged not to take another's plan but to make its own suitable to the needs, these may be suggestive.

The time for trade preparation is usually short; this bulletin will teach those interested in vocational training how to "redeem the time."

BULLETIN NO. 18.—TRADE AND INDUSTRIAL SERIES NO. 2.—EVENING
INDUSTRIAL SCHOOLS.

Evening industrial schools is the subject of Bulletin 18, the purpose of which is to outline the approved practice in this type of instruction rather than the administration of such. Evening industrial training is still in its experimental stage, and all plans for such education must be flexible, as no fixed practices are applicable to all situations.

Evening school work is interpreted by the Federal Board to mean school work given at hours other than those of actual employment. Evening school instruction may be given in the morning to night workers. Financial aid is only given to the type of evening schools which are concerned with trade-extension education.

The bulletin outlines the possibilities in evening industrial education, gives suggestive courses of study, and the approved methods of establishing and conducting such schools for trade workers.

The bulletin fully discusses the following topics, which are considered the component factors of an evening school, upon whose interrelation and coordination depends the success of the enterprise:

1. Pupils.
2. Courses of study.
3. Teachers.

4. Methods.
5. Buildings.
6. Equipment.
7. Organization and conduct.
8. Responsibilities, opportunities, and duties of possible cooperative agencies.

The efficiency of this type of education will be measured largely by the ability to meet the demands of the trades and industries for which the school gives supplementary instruction. But stress is laid upon the great importance of the work of the individual teacher, whose social spirit and the degree to which he assumes the responsibilities of anticipating the needs of his individual pupils will, after all, determine the final success of the work.

BULLETIN NO. 19.—TRADE AND INDUSTRIAL SERIES NO. 3.—PART-TIME
TRADE AND INDUSTRIAL EDUCATION.

The great need of part-time instruction for the wage earner may be looked upon just now as twofold—to provide, first, for the normal demands of youth, and, second, to aid in the war preparation of industries so handicapped by the shortage of labor. This bulletin defines the part-time school as any school conducted for a limited number of hours during the regular working-day.

The part-time school may be one of three kinds. A part-time continuation school aims to complete the general education of the pupil, a part-time trade preparatory school endeavors to increase the skill and intelligence in a vocation other than the one in which the worker is engaged, and a part-time trade extension school is that one which is strictly supplementary to the employment of the pupils.

Outlines are given of part-time systems already established in some States and in foreign countries.

Upon these two principles, in a large measure, the success of the scheme depends, that classes must be made up of workers of similar needs, and the instruction must be organized about these needs. Close correlation of the school instruction with the shopwork is of vital importance.

The bulletin shows how Federal aid may be obtained for part-time schools, and gives several new rulings of the Board made at the August meeting on part-time education, one of which permits commercial subjects to be taught. Several States have made attendance upon part-time courses compulsory within certain limits, and the bulletin contends that part-time education, to be effective, must be mandatory, not only upon the pupil but also upon the communities, parents, and employers.

BULLETIN NO. 20.—TRADE AND INDUSTRIAL SERIES NO. 4.—BUILDINGS AND EQUIPMENT FOR SCHOOLS AND CLASSES IN TRADE AND INDUSTRIAL SUBJECTS.

By the provisions of the Federal act the State boards are expected to provide their own equipment for vocational training; but the approval of their plans by the Federal Board is required. Therefore the material contained in this bulletin has been collected and prepared for the information of the State boards.

The demands of industry for better workmen are responsible for the growth of industrial schools in the development of the educational system. The new type of school requires a new type of building. In some cases special school buildings have been erected, and in others old factories or abandoned schoolhouses have been remodeled to meet the need. The bulletin points out the advantages of the new building over the converted buildings and gives a detailed description of the best plans and equipment for trade or industrial schools.

This description covers the general plan, the needs of a typical shop, and general specifications. In addition a typical machine shop, a carpenter shop, an electrical shop, plumbing and paint and printing shops, and sheet-metal shops are all described.

A familiar acquaintance with up-to-date machinery is essential before the boy is able to take his place in industry. Therefore, the bulletin states that the school should be constructed so that the pupils will be placed in situations which closely resemble the conditions of the trade or industry. To do this, the factory type of school building constructed on the "unit basis" has proved to be the most satisfactory.

The bulletin contains a number of illustrations and floor plans of trade schools already established, with descriptions of the distinctive features of each.

Part II of the bulletin describes the equipment, courses of study, and methods of instruction in carpentry.

BULLETIN NO. 21.—AGRICULTURAL SERIES NO. 3.—THE HOME PROJECT AS A PHASE OF VOCATIONAL AGRICULTURAL EDUCATION.

This bulletin gives information and suggestions about that phase of secondary agricultural education known as the home project, a type of instruction which satisfies the demands of the Smith-Hughes Act as definitely fitting the pupils for useful employment. The meaning of the term "home project" is fully discussed, and classification into production, improvement, and demonstration projects is made according to the purpose of the work.

Cooperation between parents and teachers is essential to the success of a home project; other factors to be considered are the pupil's interest, local conditions, and the financial gain.

The bulletin contains helpful suggestions as to the length of time necessary to acquire skill in the processes, to obtain some profit or loss or improvement from the project, to gain experience, to become familiar with problems of general management.

Specimen plans of a variety of projects are given, together with methods of relating school instruction with the practical home work. Supervision is for the purpose of encouragement and of assisting the pupil not only in the actual work itself but in becoming familiar with reference material and in arranging notebooks, which may, if properly made, contain useful information for future years.

Suggestive forms of accounts and records, diagrams of inspection blanks, report blanks for the State-supervisor survey forms are all found in the bulletin.

A memorandum approved by the Department of Agriculture and the Federal Board for Vocational Education completes the bulletin.

BULLETIN NO. 22.—COMMERCIAL EDUCATION SERIES NO. 1.—RETAIL
SELLING.

The type of commercial education that prepares for retail selling constitutes a great need, and merchants are realizing that some scientific knowledge of the business of selling is quite as important as that of production and manufacture. This bulletin makes available information that will enable boards of education and merchants to establish courses of study in high schools and stores for training in retail-selling vocations. It also points out the need for teacher-training courses and gives definite plans for the establishment of such courses. There are suggestions for organizing part-time courses for the benefit of those who have already entered employment with inadequate training.

The bulletin discusses the personnel of the retail establishment, emphasizing the importance of the employment of the right people as one of the first essentials in building up an efficient and permanent organization. Added to this right selection, the suggested training courses, and the proper understanding of the possibilities of promotion and adjustment of difficulties, the labor turnover will be greatly reduced and financial and economic waste to a great extent eliminated. In addition to the discussion of the best ways to solve these problems, the bulletin discusses the wide range of opportunities in the various branches of the retail trade.

Plans for organization and detailed outlines for courses to be given in high schools and in stores and for teacher training are given.

The proper methods of training for retail selling in small towns follows the larger discussion of the methods applicable to the large department stores in cities.

Economic advantages of training—the elimination of many costly errors, among others—first brought the merchant to advocate it, and schools followed with their support. In issuing this bulletin the Federal Board for Vocational Education hopes that many communities will find it useful in meeting the needs of a large group of commercial workers for whom in the past no adequate training has been given.

BULLETIN NO. 23.—HOME ECONOMICS SERIES NO. 1.—CLOTHING FOR THE FAMILY.

Recognizing that the service of the home maker is a national one, and realizing the demand for training in order to make this service efficient, the Federal Board, in response to many requests for simple, direct help in this direction, offers this bulletin on "Clothing for the Family" as the first of a series upon subjects that will be helpful to home makers and prospective home makers.

It is to lead to a proper understanding of the economic and artistic standards to be observed, to develop judgment, and to aid in the campaign for the conservation of clothing that this bulletin has been prepared. It is hoped that it will be useful to the girl in school, in college, in business, as well as to the girl in home making, in solving the problem of how to purchase materials and to make and select garments appropriate to the needs of the family for sanitary, attractive, and economic clothing.

BULLETIN NO. 24.—COMMERCIAL EDUCATION SERIES NO. 2.—VOCATIONAL EDUCATION FOR FOREIGN TRADE AND SHIPPING.

The practical certainty of the great increase in our foreign trade after the war, and the possession of a large mercantile marine which may be utilized in the development of foreign commerce, emphasize the necessity of special training for those who will successfully compete with foreign merchants. Therefore, the Federal Board for Vocational Education, in cooperation with the Bureau of Foreign and Domestic Commerce, has undertaken to furnish this technical education through a series of bulletins of which this one on "Foreign Trade and Shipping" is the beginning.

Short unit courses are outlined on the following subjects: Foreign trade technique, common selling method and practices, the mechanism of foreign trade, exchange, credit and banking, ocean transportation, marine insurance, trade routes, and foreign tariff and policies.

Specialized courses will be published later dealing with selected commerce areas which will be useful for those students who have the technical knowledge of foreign trade and who desire to know better the trade conditions and economic resources and the language of some one particular region.

MONOGRAPH NO. 1.—VOCATIONAL REHABILITATION SERIES NO. 1.—TO THE
DISABLED SOLDIER AND SAILOR IN THE HOSPITAL.

The first evidences of returning strength bring to the wounded soldier the realization of his handicap. This is the time when the Federal Board for Vocational Education wishes to get in touch with the man in the hospital and to lead him out of his discouragement into the consciousness of a useful life ahead of him.

This pamphlet is the effort of the Federal Board to bring to the disabled soldier and sailor in the hospital, at the earliest possible moment, the knowledge of the Government's offer to train him for the vocation best suited to his circumstances. It points the way and clears up the difficulties that may arise as he considers the acceptance of the offer. It encourages him to undertake the training by telling of others like him who have benefited by such courses.

It discusses the plans for advisement and assistance in selecting a course of training for the man who wants a new job, because he can not go back to his old job, or for the man who wants a new job, because he had no old one to go back to. Training for any occupation suitable to any man with any disability is included in the list of courses given by the Federal Board.

The pamphlet informs the soldier of the allowances for his support and those for the maintenance of his family given during his period of training. It explains the intentions of the Board to secure for him some permanent employment and the continued interest to be shown in follow-up work, in order to protect him from mistakes and exploitation.

It is the purpose of the Federal Board in this monograph to prove to him that handicaps may be made helps rather than hindrances if he has the will to make them so.

STATISTICAL REPORT.

Detailed statistical returns made to the Federal Board by State boards for vocational education covering the year ended June 30, 1918, are tabulated in the general tables following.

NUMBER OF SCHOOLS REPORTING VOCATIONAL COURSES.

In the aggregate data are reported for 1,741 schools which conducted vocational courses during the year. This does not mean that 1,741 different communities reported vocational schools or classes, but that enrollment data were reported for 1,741 schools. Where, for example, a community reported an all-day trade or industrial school and also separately a part-time trade or industrial school, it has been counted as reporting two schools. Generally schools for

which data were separately reported have been counted as schools, even where two or more schools or school centers of the same general type have been reported by one community.

Schools were reported from every State, the number ranging by States from 1 in South Dakota to 393 in Pennsylvania. The geographical distribution by regions and States, of different types of schools reported—including agricultural, trade and industrial all-day and evening, home economics all-day and evening, and part-time schools—is shown in Table 5.

TEACHER-TRAINING CENTERS.

Teacher-training courses for teachers of vocational agriculture were given in 40 educational institutions, for teachers of trade or industrial subjects in 45 institutions, and for teachers of home economics in 60 institutions. These several totals do not of course represent in the aggregate different institutions, since in many cases institutions setting up training courses for vocational teachers covered two and in some cases all three of the several fields of vocational instruction. Teacher-training centers were reported from all but six States. In table 5 the number of training centers in each State is given for each type of instruction.

NUMBER OF TEACHERS OF VOCATIONAL COURSES.

Teachers of vocational courses in the 1,741 schools reporting vocational work numbered 5,257. (See Table 6.) Of these 895 were teachers of agricultural subjects, 3,276 were teachers of trade or industrial subjects, and 1,086 were teachers of home-economics subjects. There may be in these totals some duplication, teachers of all-day schools being returned in some cases as teachers also in part-time or evening schools, where several types of trade, industrial, or home-economics schools are reported from the same community. For any given type of school, however, the figures given are free of duplications and represent accurately the teaching force engaged in giving the specified type of instruction.

TEACHER-TRAINING TEACHERS.

Institutions which had set up teacher-training courses reported 524 teachers of such courses, including 116 for agricultural, 95 for trade or industrial, and 263 for home-economics teacher training, and 50 teachers not classified in the returns, according to course of instruction given. (See Table 6.)

ENROLLMENT IN VOCATIONAL COURSES.

An aggregate enrollment of 164,186 pupils was reported by the 1,741 vocational schools, the enrollment in part-time schools being 53,005, in evening trade or industrial schools 45,985, in evening home economics schools 22,360, in all-day trade or industrial schools 18,528, in agricultural schools 15,187, and in all-day home economics schools 8,333. Enrollment for part-time courses was largely in the North Atlantic States, although the East Central States reported 6,398 pupils in such courses. Only 29 of the 30,693 home-economics pupils were males. Of the 15,187 agricultural pupils 1,286 were females. Of the part-time pupils 32,605 were males and 20,400 were females. (See Table 7.)

ENROLLMENT IN TEACHER-TRAINING COURSES.

In courses for training teachers of vocational agriculture an enrollment of 1,534 pupils was reported; in trade and industrial teacher-training courses an enrollment of 1,091, and in home economics 3,319. Including 635 pupils not classified in the returns by course of study, the total enrollment in teacher-training courses was 6,579. (See Table 7.)

SCHOOLS AND TEACHER-TRAINING CENTERS APPLYING FOR AID.

A total of 1,810 schools applied for aid during the year, and of these 1,415 were approved and 395 were not approved. The number of teacher-training centers applying for aid was 89, of which 83 were approved and 6 were not approved. (See Table 8.)

STATE DIRECTORS AND SUPERVISORS.

State directors and supervisors numbered 139, of whom 54 were reimbursed in part out of Federal funds, 36 were paid out of State funds only, 13 out of local funds only, and 8 out of State and local funds only, source of salary not being reported in the case of 28 supervisors and directors. (See Table 9.) These State officers were paid in the aggregate \$241,081.71 of which amount \$40,842.28 was paid back out of Federal money. (See Table 10.)

REGIONAL SUMMARY OF STATISTICAL RETURNS BY STATES.

In Table 1 regional totals have been assembled from State tables showing for each region number of schools of each type reporting vocational courses; number of teacher-training centers for agriculture, trade and industry, and home economics; number of teachers of the several types of vocational courses; number of teacher-training teachers in agricultural, trade or industrial, and home-economics courses; number of pupils enrolled in different types of schools by

sex; number of pupils enrolled in teacher-training courses of each general type; number of schools and of teacher-training centers applying for aid which were approved and not approved; number of State directors and supervisors and amount paid out of Federal, State, and local funds in salaries to State directors and supervisors.

TABLE 1.—*Statistics of vocational schools and of vocational teacher-training centers for the year ended June 30, 1918, by regions.*

Type of school, center, or course, sex, class of State director or supervisor, and source of salary .	United States.	Region.					
		North Atlantic.	Southern.	East Central.	West Central.	Pacific.	
Total..... Agricultural school..... Trade or industrial: All-day school..... Evening school..... Home economics: All-day school..... Evening school..... Part-time school.....	Number of schools reporting vocational courses.						
	1, 741	794	285	423	92	147	
	609	166	200	159	45	39	
	168	71	17	33	6	41	
	300	104	24	125	12	35	
	200	102	24	34	25	15	
	123	76	10	35	1	1	
	341	275	10	37	3	16	
	Number of centers reporting teacher-training courses.						
	40	8	9	11	7	5	
	45	20	6	7	5	7	
	60	12	13	11	12	12	
	Number of teachers of vocational courses.						
	Total, both sexes.....	5, 257	3, 035	473	1, 311	161	277
	Agricultural school: Employed full year..... Employed less than full year.....	686 209	216 89	185 55	208 12	38 24	39 29
Trade or industrial: All-day school..... Evening school.....	1, 052 1, 397	738 662	79 71	138 530	12 62	85 72	
Home economics: All-day school..... Evening school.....	398 688	252 479	30 30	68 171	18 3	30 5	
Part-time school.....	827	599	23	184	4	17	
Total, male.....	3, 236	1, 680	380	848	118	210	
Agricultural school ¹ Trade or industrial: All-day school..... Evening school.....	895 762 1, 200	305 537 598	240 63 68	220 83 422	62 12 42	68 67 70	
Home economics: All-day school..... Evening school.....	10 2	7 1	3			1	
Part-time school.....	367	232	6	123	2	4	
Total, female.....	2, 021	1, 365	93	463	43	67	
Agricultural school ¹ Trade or industrial: All-day school..... Evening school.....	290 197	201 64	16 3	55 108		18 2	
Home economics: All-day school..... Evening school.....	388 686	245 478	27 30	68 171	18 3	30 4	
Part-time school.....	460	367	17	61	2	13	

¹ All agricultural teachers are classified as men. They were not returned by sex and may include a few women teachers.

TABLE 1.—Statistics of vocational schools and of vocational teacher-training centers for the year ended June 30, 1918, by regions—Continued.

Type of school, center, or course, sex, class of State director or supervisor, and source of salary.	United States.	Region.				
		North Atlantic.	Southern.	East Central.	West Central.	Pacific.
		Number of teacher-training teachers.				
Total.....	524	113	115	108	96	92
Agricultural course.....	116	18	24	30	19	25
Trade or industrial course.....	95	61	15	8	4	7
Home economics course.....	263	34	76	35	61	57
Unclassified.....	50			35	12	3
		Number of pupils enrolled in vocational courses.				
Total, both sexes ¹	164,186	105,016	9,476	37,145	4,669	7,880
Agricultural school.....	15,187	3,649	4,648	4,681	921	1,288
Trade or industrial:						
All-day school.....	18,528	13,039	664	3,582	62	1,181
Evening school.....	45,985	23,196	1,694	14,931	2,295	3,569
Home economics:						
All-day school.....	8,333	4,186	890	1,801	753	703
Evening school.....	22,360	15,270	1,133	5,752	55	150
Part-time school.....	53,005	45,373	447	6,398	98	689
Total, male.....	100,760	60,825	6,119	24,307	3,262	6,247
Agricultural school.....	13,901	3,569	3,922	4,247	880	1,283
Trade or industrial:						
All-day school.....	14,645	10,639	399	2,489	62	1,056
Evening school.....	39,580	18,428	1,604	13,451	2,272	3,825
Home economics:						
All-day school.....	25		25			
Evening school.....	4	4				
Part-time school.....	32,605	28,185	169	4,120	48	83
Total, female.....	62,941	44,191	3,357	12,838	922	1,633
Agricultural.....	1,286	80	726	434	41	5
Trade or industrial:						
All-day school.....	3,883	2,400	265	1,093		125
Evening school.....	6,708	5,071	90	1,480	23	44
Home economics:						
All-day school.....	8,308	4,186	865	1,801	753	703
Evening school.....	22,356	15,266	1,133	5,752	55	150
Part-time school.....	20,400	17,188	278	2,278	50	606
		Number of pupils enrolled in teacher-training courses.				
Total.....	6,579	1,014	1,597	2,083	1,306	580
Agricultural.....	1,534	155	193	1,010	79	97
Trade or industrial.....	1,091	450	65	371	18	187
Home economics.....	3,319	409	1,339	376	951	244
Not classified.....	635			325	258	52
		Number of schools applying for aid.				
All schools:						
Total.....	1,810	633	354	500	150	173
Approved.....	1,415	561	258	372	98	126
Not approved.....	395	72	96	128	52	47
Agricultural school:						
Total.....	746	173	241	220	72	40
Approved.....	569	142	192	151	45	39
Not approved.....	177	31	49	69	17	11

¹Includes 485 pupils not classified by sex.

TABLE 1.—Statistics of vocational schools and of vocational teacher-training centers for the year ended June 30, 1918, by regions—Continued.

Type of school, center, or course, sex, class of State director or supervisor, and source of salary.	United States.	Region.				
		North Atlantic.	Southern.	East Central.	West Central.	Pacific.
Trade or industrial:						
All-day school—						
Total.....	160	69	15	20	18	38
Approved.....	122	61	12	18	6	25
Not approved.....	38	8	3	2	12	13
Evening school—						
Total.....	276	82	17	117	18	42
Approved.....	260	79	16	113	17	35
Not approved.....	16	3	1	4	1	7
Home economics:						
All-day school—						
Total.....	320	138	63	41	47	31
Approved.....	209	116	23	30	25	15
Not approved.....	111	22	40	11	22	16
Evening school—						
Total.....	140	52	8	73	1	6
Approved.....	95	49	8	31	1	6
Not approved.....	45	3	.....	42	.....	.....
Part-time school:						
Total.....	168	119	10	29	4	6
Approved.....	160	114	7	29	4	6
Not approved.....	8	5	3	.....	.....	.....
Teacher-training centers applying for aid.						
Total.....	89	16	26	18	10	19
Approved.....	83	16	22	17	10	18
Not approved.....	6	.....	4	1	.....	1
Number of State directors and supervisors.						
Total.....	139	49	22	31	21	16
Reimbursed in part out of Federal funds.....	54	19	10	11	8	6
Paid out of State funds only.....	36	19	4	4	4	5
Paid out of local funds only.....	13	5	.....	7	1	.....
Paid or reimbursed out of State and local funds only.....	8	.....	3	3	2	.....
Source of salary not reported.....	28	6	5	6	6	5
Give full time to supervision.....	63	31	6	13	6	7
Give part time to supervision.....	51	13	9	15	7	7
Apportionment of time not reported.....	25	5	7	3	8	2
Amount of salaries of State directors and supervisors.						
Total.....	\$241,081.71	\$116,149.82	\$25,666.32	\$47,140.59	\$20,650.02	\$31,474.96
Reimbursed out of Federal funds.....	40,842.28	14,007.58	8,952.09	5,924.29	6,262.50	5,695.82
Paid or reimbursed out of State funds.....	140,611.12	71,992.24	12,832.92	23,094.30	9,412.52	23,279.14
Paid out of local funds.....	39,103.31	14,200.00	1,881.31	18,122.00	4,900.00	.....
Source of salary not reported.....	20,525.00	15,950.00	2,000.00	.....	75.00	2,500.00

ALLOTMENT TABLES.

Tables 11 and 12 give amount of Federal grants to each State in 1917-18 and 1918-19 for reimbursement of salaries of teachers and supervisors and directors of agricultural schools, for salaries of teachers of trade, industrial, and home-economics subjects, and for maintenance of teacher training.

INCREASE IN ALLOTMENT 1918-19 OVER 1917-18.

In the aggregate the States will receive during the fiscal year 1918-19 a Federal grant of \$2,307,460.44, which exceeds the amount available during the year 1917-18 by \$651,873.72. The increase in the grant for agriculture from \$547,027.79 in 1917-18, to \$782,575.76, amounts to \$235,547.97; the increase for vocational trade, industry, and home economics from \$564,444.89 to \$794,463.33 amounts to \$230,018.44; and for vocational teacher training the increase from \$544,114.04 to \$730,421.35 amounts to \$186,307.31. These increases are shown by regions in Table 2.

By States the increase in the total grant of Federal money in 1918-19 over the grant for 1917-18 is shown in Table 4.

TABLE 2.—Increase in allotment of Federal money for the promotion of vocational agriculture, trade, industry, home economics, and teacher training, 1918-19 over 1917-18, by regions.

Region.	Allotment for fiscal year ending June 30.		
	Amount.		Increase 1918-19 over 1917-18.
	1918-19	1917-18	
	Total.		
United States.....	\$2,307,460.44	\$1,655,586.72	\$651,873.72
North Atlantic.....	706,764.31	505,023.06	201,741.25
Southern.....	527,462.07	369,202.10	158,259.97
East Central.....	705,127.99	482,429.66	222,698.33
West Central.....	206,327.81	165,560.99	40,766.82
Pacific.....	161,778.26	133,370.91	28,407.35
	For vocational agriculture.		
United States.....	\$782,575.76	\$547,027.79	\$235,547.97
North Atlantic.....	130,163.37	98,118.69	32,044.68
Southern.....	272,935.68	181,957.12	90,978.56
East Central.....	243,551.70	162,367.80	81,183.90
West Central.....	88,417.17	64,950.92	23,466.25
Pacific.....	47,507.84	39,633.26	7,874.58

TABLE 2.—Increase in allotment of Federal money for the promotion of vocational agriculture, trade, industry, home economics, and teacher training, 1918-19 over 1917-18, by regions—Continued.

Region.	Allotment for fiscal year ending June 30.		
	Amount.		Increase 1918-19 over 1917-18.
	1918-19	1917-18	
For vocational trade, industry, and home economics.			
United States.....	\$794,463.33	\$564,444.89	\$230,018.44
North Atlantic.....	359,262.34	244,998.63	114,263.71
Southern.....	83,482.26	64,176.94	19,305.32
East Central.....	237,345.02	159,896.67	77,448.35
West Central.....	52,126.15	45,832.82	6,288.33
Pacific.....	62,247.56	49,534.83	12,712.73
For vocational teacher training.			
United States.....	\$730,421.35	\$544,114.04	\$186,307.31
North Atlantic.....	217,338.60	161,905.74	55,432.86
Southern.....	171,044.13	123,068.04	47,976.09
East Central.....	224,231.27	160,165.19	64,066.08
West Central.....	65,784.49	54,772.25	11,012.24
Pacific.....	52,022.86	44,202.82	7,820.04

APPORTIONMENT OF ALLOTMENT FOR TRADE, INDUSTRY, AND HOME ECONOMICS.

Under the law not over 20 per cent of the total grant to any State may be expended for reimbursement of salaries of home-economics teachers. In Table 13 the amount expended in 1917-18 for salaries of home-economics teachers in the several States is given in comparison with the maximum amount available for such reimbursement, namely, 20 per cent of the total grant for trade, industry, and home economics.

Another provision of the law restricts the amount available for reimbursement of salaries of all-day and evening schools to two-thirds of the total grant for trade, industrial, and home-economics schools. In Table 13 the amount expended in 1917-18 for salaries of all-day and evening schools in each State is shown in comparison with the amount available under the Federal law for reimbursement of such expenditure.

APPORTIONMENT OF ALLOTMENT FOR MAINTENANCE OF TEACHER TRAINING.

Not over 60 per cent of the total grant to any State for the maintenance of teacher training may be expended for agricultural, trade

or industrial, or home-economics teacher training, respectively. The amounts expended during the last fiscal year in the several lines in each State in comparison with the total grant to the State for teacher training is shown in Table 14.

UNEXPENDED BALANCES IN STATE TREASURIES JULY 30, 1918.

Under approved State plans total allotments of Federal money were certified and paid over to the several States for the fiscal year 1917-18, aggregating \$1,655,586.72. As, however, many States were unable to organize their work completely in the limited time available under these plans covering the full year, considerable balances of Federal money unexpended at the end of the year were reported. Under the law these balances revert to the Federal Treasury, the amounts to be sent to the States in the fiscal year 1918-19 being reduced by the amount of any unexpended balances in State treasuries.

Table 3 shows by regions the amount of the unexpended balances, on account of the allotments for agriculture, for trade, industry, and home economics, and for teacher training. Of the Federal grant for agriculture \$273,440.11 was unexpended by the States under approved plans; of the grant for trade, industry, and home economics \$198,975.48; and of the grant for teacher training \$353,387.22.

Unexpended balances of allotments for each type of vocational education are shown by States in Tables 15, 16, and 17.

TABLE 3.—*Unexpended balances in State treasuries June 30, 1918, and amount to be sent to States for the fiscal year 1918-19, by regions.*

Region.	Fiscal year ending June 30—				
	1917-18			1918-19	
	Amount sent to States.	Amount expended by States.	Unexpended balance in State treasuries (a-b).	Allotment to States.	Amount to be sent to States (d-e).
	a	b	c	d	e
	Total.				
United States.....	\$1,655,586.72	\$829,783.91	\$825,802.81	\$2,307,460.44	\$1,481,657.63
North Atlantic.....	505,023.06	343,673.72	161,349.34	706,764.31	545,414.97
Southern.....	369,202.10	144,176.20	225,025.90	527,462.07	302,436.17
East Central.....	482,429.66	216,179.83	266,249.83	705,127.99	438,878.16
West Central.....	165,560.99	70,074.22	95,486.77	206,327.81	110,841.04
Pacific.....	133,370.91	55,679.94	77,690.97	161,778.26	84,087.29

TABLE 3.—*Unexpended balances in State treasuries June 30, 1918, and amount to be sent to States for the fiscal year 1918-19, by regions—Continued.*

Region.	Fiscal year ending June 30—				
	1917-18			1918-19	
	Amount sent to States.	Amount expended by States.	Unexpended balance in State treasuries (a-b).	Allotment to States.	Amount to be sent to States (d-c).
	a	b	c	d	e
For vocational agriculture.					
United States.....	\$547,027.79	\$273,587.68	\$273,440.11	\$782,575.76	\$509,135.65
North Atlantic.....	98,118.69	78,002.49	20,116.20	130,163.37	110,047.17
Southern.....	181,957.12	82,352.41	99,604.71	272,935.68	173,330.97
East Central.....	162,367.80	68,575.31	93,792.49	243,551.70	149,759.21
West Central.....	64,950.92	25,892.48	39,058.44	88,417.17	49,358.73
Pacific.....	39,633.26	18,764.99	20,868.27	47,507.84	26,639.57
For vocational trade, industry, and home economics.					
United States.....	\$564,444.79	\$365,469.41	\$198,975.48	\$794,463.33	\$595,487.85
North Atlantic.....	244,998.63	208,904.02	36,094.61	359,262.34	323,167.73
Southern.....	64,176.94	22,644.02	41,532.92	83,482.26	41,949.34
East Central.....	159,896.67	96,273.98	63,622.69	237,345.02	173,722.33
West Central.....	45,837.82	12,917.57	32,920.25	52,126.15	19,205.90
Pacific.....	49,534.83	24,729.82	24,805.01	62,247.56	37,442.55
For vocational-teacher training.					
United States.....	\$544,114.04	\$190,726.82	\$353,387.22	\$730,421.35	\$377,034.13
North Atlantic.....	161,905.74	56,767.21	105,138.53	217,338.60	112,200.07
Southern.....	123,068.04	39,179.77	83,888.27	171,044.13	87,155.86
East Central.....	160,165.19	51,330.54	108,834.65	224,231.27	115,396.62
West Central.....	54,772.25	31,264.17	23,508.08	65,784.49	42,276.41
Pacific.....	44,202.82	12,185.13	32,017.69	52,022.86	20,005.17

INTEREST EARNED ON FEDERAL FUNDS.

The Federal Board has transmitted to the Secretary of the Treasury checks to the amount of \$7,297.84, representing the interest earned on Federal funds allotted to the States for the fiscal year ending June 30, 1918.

The Secretary of the Treasury has rendered a decision in effect that the funds deposited with the State treasurers under the provisions of the vocational education act are United States funds. The title to the funds remains in the United States until disbursements are made in accordance with the requirements of the act. Since title is still in the United States during the period in which the State treasurer is custodian of the funds, it follows that any interest earned on the funds belongs to the United States and should be covered into the Treasury as miscellaneous receipts.

The substance of the above was communicated to the executive officers of the State boards for vocational education and to the State treasurers of the various States on February 20, 1918.

It is the duty of the Federal Board and the various State boards to check up the interest received on the funds allotted to the State through the State treasurer as custodian. The Federal Board, therefore, requires the State board on or before September 1, as a part of its annual report to the Federal Board, to include an affidavit from the custodian concerning the amount of funds received by him during the current fiscal year and also the amount of interest, if any, earned on these funds.

The following States have filed through the State treasurer an affidavit to the effect that the amount of the interest set opposite each State was earned on Federal funds for the fiscal year ended June 30, 1918:

Total -----	\$7, 297. 84	Nebraska-----	\$156. 58
Arizona-----	62. 59	New Hampshire-----	86. 98
Connecticut-----	153. 48	New Jersey-----	267. 03
Florida-----	99. 73	New Mexico-----	150. 00
Idaho-----	116. 50	New York-----	224. 12
Illinois-----	466. 27	North Carolina-----	213. 67
Indiana-----	235. 24	North Dakota-----	105. 47
Iowa-----	153. 43	Oklahoma-----	182. 30
Kansas-----	211. 86	Pennsylvania-----	491. 35
Kentucky-----	114. 95	Rhode Island-----	16. 82
Maine-----	123. 57	Tennessee-----	351. 43
Massachusetts-----	603. 17	Utah-----	101. 25
Minnesota-----	125. 05	Virginia-----	266. 24
Mississippi-----	41. 60	West Virginia-----	164. 20
Missouri-----	638. 56	Wisconsin-----	222. 88
Montana-----	112. 77	Wyoming-----	38. 75

The following States have filed through the State treasurer an affidavit to the effect that no interest was earned on Federal funds for the fiscal year ended June 30, 1918:

Alabama.	Michigan.
Arkansas.	Nevada.
California.	Oregon.
Colorado.	South Carolina.
Delaware.	Texas.
Georgia.	Vermont.
Louisiana.	Washington.
Maryland.	

The State of Ohio has submitted an affidavit of the State treasurer showing that \$500.80 interest was earned on Federal funds for the fiscal year ended June 30, 1918. This was accompanied by a state-

ment that payment could not be made before the legislature approves it at their next meeting in January, 1919.

No accounting has yet been made by the State of South Dakota.

TABLE 4.—Increase in total allotment of Federal money for the promotion of vocational education, by States, 1918-19 over 1917-18.

	Allotment for fiscal year ending June 30.		
	Amount.		Increase 1918-19 over 1917-18.
	1918-19	1917-18	
United States.....	\$2,307,460.44	\$1,655,586.72	\$651,873.72
I. NORTH ATLANTIC.			
Maine.....	17,920.34	15,000.00	2,920.34
New Hampshire.....	15,000.00	15,000.00	.....
Vermont.....	15,000.00	15,000.00	.....
Massachusetts.....	86,138.70	60,316.96	25,821.74
Rhode Island.....	19,304.07	16,202.71	3,101.36
Connecticut.....	31,245.91	22,902.76	8,343.15
New York.....	226,343.14	154,210.39	72,132.75
New Jersey.....	62,776.07	42,773.58	20,002.49
Pennsylvania.....	186,786.00	127,312.10	59,473.90
Delaware.....	15,000.00	15,000.00	.....
Maryland.....	31,250.08	21,304.56	9,945.52
II. SOUTHERN.			
Virginia.....	48,288.17	32,942.00	15,346.17
North Carolina.....	51,191.24	36,164.85	15,026.39
South Carolina.....	36,189.30	26,344.08	9,845.22
Georgia.....	60,948.84	41,581.59	19,367.25
Florida.....	18,857.55	15,405.79	3,451.76
Tennessee.....	51,011.12	34,802.10	16,209.02
Alabama.....	49,765.68	34,575.42	15,190.26
Mississippi.....	42,888.92	30,912.95	11,975.97
Arkansas.....	37,874.42	27,488.96	10,385.46
Louisiana.....	39,085.00	26,659.16	12,425.84
Texas.....	91,361.83	62,325.20	29,036.63
III. EAST CENTRAL.			
West Virginia.....	29,417.16	21,722.27	7,694.89
Ohio.....	115,622.17	78,815.42	36,806.75
Kentucky.....	53,701.68	36,634.04	17,067.64
Michigan.....	67,539.35	46,048.41	21,490.94
Indiana.....	64,578.82	44,034.97	20,543.85
Wisconsin.....	55,843.72	38,078.05	17,765.67
Illinois.....	137,581.93	93,772.25	43,809.68
Minnesota.....	49,557.88	33,793.59	15,764.29
Iowa.....	52,530.24	35,829.39	16,700.85
Missouri.....	78,755.04	53,701.27	25,053.77
IV. WEST CENTRAL.			
North Dakota.....	17,808.99	15,205.99	2,603.00
South Dakota.....	17,708.61	15,139.07	2,569.54
Nebraska.....	28,014.13	20,434.70	7,579.43
Kansas.....	39,867.34	27,193.28	12,674.06
Oklahoma.....	38,655.31	27,587.95	11,067.36
Montana.....	15,000.00	15,000.00	.....
Wyoming.....	15,000.00	15,000.00	.....
Colorado.....	19,273.43	15,000.00	4,273.43
New Mexico.....	15,000.00	15,000.00	.....
V. PACIFIC.			
Idaho.....	15,000.00	15,000.00	.....
Utah.....	15,000.00	15,000.00	.....
Arizona.....	15,000.00	15,000.00	.....
Nevada.....	15,000.00	15,000.00	.....
Washington.....	27,614.44	18,825.02	8,789.42
Oregon.....	16,142.18	15,000.00	1,142.18
California.....	58,021.64	39,545.89	18,475.75

TABLE 5.—Number of schools reporting Federally aided vocational instruction and number of teacher-training centers, by States, for fiscal year ended June 30, 1918.

Region or State.	Number of centers reporting Federally aided vocational instruction.						Number of teacher-training centers.			
	Total.	Agricultural.	Trade or industrial.			Home economics.		Agricultural.	Trade or industrial.	Home economics.
			All-day schools.	Part-time schools.	Evening schools.	All-day schools.	Evening schools.			
United States.....	1,741	609	168	341	300	200	123	40	45	60
REGIONS.										
I. North Atlantic.....	794	166	71	275	104	102	76	8	20	12
II. Southern.....	285	200	17	10	24	24	10	9	6	13
III. East Central.....	423	159	33	37	125	34	35	11	7	11
IV. West Central.....	92	45	6	3	12	25	1	7	5	12
V. Pacific.....	147	39	41	16	35	15	1	5	7	12
I. NORTH ATLANTIC.										
Maine.....	27	8	4		3	6	6	1	1	2
New Hampshire.....	26	17	4	4		1		1		1
Vermont.....	24	2		1	5	16		1	1	1
Massachusetts.....	33	17	16	2	20	9	19		5	2
Rhode Island.....	8			2	6					
Connecticut.....	28	3	7	5	7	3	3		3	
New York.....	114	54	15	35	10			1	5	2
New Jersey.....	71	15	11	6	7	10	22	1	1	3
Pennsylvania.....	393	42	14	220	39	52	26	1	3	
Delaware.....	11	3			4	4		1	1	1
Maryland.....	9	5			3	1		1		
II. SOUTHERN.										
Virginia.....	26	18	1	1	2		4			
North Carolina.....	19	14			4	1		1		2
South Carolina.....	14	13			1			2		
Georgia.....	49	23	6	5	5	7	3	1	1	3
Florida.....	13	8			1	4				
Tennessee.....	23	22	1							
Alabama.....	23	13	2	3	4	1		1	2	2
Mississippi.....	34	30		1		3		2	2	2
Arkansas.....	15	11	1		1	1	1			
Louisiana.....	21	16	1			4		1	1	3
Texas.....	48	32	5		6	3	2	1		1
III. EAST CENTRAL.										
West Virginia.....	22	11			7		4	1		1
Ohio.....	61	18	3	3	24	7	6	1		
Kentucky.....	21	8	3		1	8	1	2		
Michigan.....	60	43	1	3	4	5	4	1	1	2
Indiana.....	88	35	3	10	24	3	13	1	3	3
Wisconsin.....	26	8	4	4	4	2	4		1	1
Illinois.....	45	15	1	9	14	3	3	3	1	2
Minnesota.....	68	12	13	2	35	6		1	1	1
Iowa.....	10	6	1	1	2					
Missouri.....	22	3	4	5	10			1		1
IV. WEST CENTRAL.										
North Dakota.....	14	7	2		1	4		1	1	1
South Dakota.....	1					1		1		2
Nebraska.....	7	2			4	1		1		
Kansas.....	8	6		1	1					2
Oklahoma.....	26	13				13		1	2	2
Montana.....	13	9	1			3		1	1	1
Wyoming.....	10	4		1	3		1		1	1
Colorado.....	11	4	2	1	2	2		1		1
New Mexico.....	2		1		1			1		1
V. PACIFIC.										
Idaho.....	6	4	2					1	1	1
Utah.....	28	15	3	1	3	6		1	1	1
Arizona.....	14	4			5	5				1
Nevada.....	11	1			10					1
Washington.....	18	5	5		5	3		1	1	2
Oregon.....	6		4		1		1	1	2	1
California.....	64	10	27	15	11	1		1	2	5

TABLE 6.—Number of teachers of vocational courses and of vocational teacher-training courses, by States, for fiscal year ended June 30, 1918.

Region or State.	Number of teachers of vocational courses.												Number of teacher-training teachers.					
	Total.	Agricultural.		Trade or industrial.						Home economics.				Total	Agricultural.	Trade or industrial.	Home economics.	Unclassified.
		Full year.	Less than full year.	All-day schools.		Part-time schools.		Evening schools.		All-day schools.		Evening schools.						
				Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.					
United States.....	5,257	686	209	762	290	367	460	1,200	197	10	388	2	686	524	116	95	263	50
REGIONS.																		
I. North Atlantic.....	3,035	216	89	537	201	232	367	598	64	7	245	1	478	113	18	61	34	.....
II. Southern.....	473	185	55	63	16	6	17	68	3	3	27	.....	30	115	24	15	76	.....
III. East Central.....	1,311	208	12	83	55	123	61	422	108	.....	68	.....	171	108	30	8	35	35
IV. West Central.....	161	38	24	12	.....	2	2	42	20	.....	18	.....	3	96	19	4	61	12
V. Pacific.....	277	39	29	67	18	4	13	70	2	.....	30	1	4	92	25	7	57	3
I. NORTH ATLANTIC.																		
Maine.....	50	8	.....	10	.....	.....	.....	17	.....	.....	.....	.....	15	14	7	2	5	.....
New Hampshire.....	55	11	14	16	.....	13	.....	.....	.....	.....	1	.....	.....	9	4	.....	5	.....
Vermont.....	44	12	5	.....	.....	2	2	6	.....	.....	17	.....	.....	6	2	.....	4	.....
Massachusetts.....	758	45	4	111	74	21	13	182	7	.....	49	.....	252	17	.....	12	5	.....
Rhode Island.....	29	.....	.....	.....	11	10	.....	19	.....	.....	.....	.....	.....	7	.....	.....	.....	.....
Connecticut.....	220	36	.....	62	.....	9	.....	65	22	.....	7	.....	8	.....	.....	.....	.....	.....
New York.....	395	40	57	211	59	.....	.....	23	5	.....	.....	.....	30	.....	.....	22	8	.....
New Jersey.....	330	18	.....	52	9	8	1	67	29	1	41	.....	104	5	1	1	3	.....
Pennsylvania.....	1,117	38	9	75	48	169	351	196	.....	6	125	1	99	18	2	16	.....	.....
Delaware.....	22	3	.....	.....	.....	.....	.....	18	.....	.....	4	.....	.....	6	1	1	4	.....
Maryland.....	15	5	.....	.....	.....	.....	.....	8	1	.....	1	.....	.....	1	1	.....	.....	.....
II. SOUTHERN.																		
Virginia.....	56	12	13	3	.....	.....	1	13	.....	.....	.....	.....	14	10	2	.....	8	.....
North Carolina.....	20	8	6	.....	.....	.....	.....	4	.....	.....	2	.....	.....	3	3	.....	.....	.....
South Carolina.....	14	.....	13	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Georgia.....	111	34	8	11	.....	5	6	25	3	3	8	.....	8	17	.....	2	10	.....
Florida.....	10	5	.....	.....	.....	.....	.....	2	.....	.....	3	.....	.....	.....	.....	.....	.....	.....
Tennessee.....	19	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alabama.....	67	13	.....	42	.....	.....	6	5	.....	.....	1	.....	.....	20	4	4	12	.....
Mississippi.....	56	34	14	.....	.....	1	4	.....	.....	.....	3	.....	.....	21	5	.....	16	.....

Arkansas.....	19	12	1	2				2			1		1						
Louisiana.....	38	16			16						6			31	2	9	20		
Texas.....	63	32		5				16			3		7	13	3		10		
III. EAST CENTRAL.																			
West Virginia.....	46	11	1					25					9	6	4		2		
Ohio.....	166	18				23	7	52			7		59	2	2				
Kentucky.....	42	8		8	1			2			22		1	6	6				
Michigan.....	132	43		6	2	6		17	13		17		28	11	2	2	7		
Indiana.....	252	35		13		19	10	113	1		3		58	27				27	
Wisconsin.....	166	5	5	16		40	38	35	10		4		13						
Illinois.....	76	15	1	4		20		27			6		3	26	8	1	17		
Minnesota.....	324	67	2	17	37	2	6	114	70		9			22	8	5	9		
Iowa.....	42	6		6	11	1		7	11										
Missouri.....	65		3	13	4	12		30	3					8					8
IV. WEST CENTRAL.																			
North Dakota.....	22	9	1	4				1	1		6			12					12
South Dakota.....	2										2			17	5		12		
Nebraska.....	19	2						16			1			16	6		10		
Kansas.....	13		6			1		6						24			24		
Oklahoma.....	32	13	1						18										
Montana.....	24	8	8	2							6			6	2	2	2		
Wyoming.....	20	2	7			1		5	1		1		3	7		2	5		
Colorado.....	23	4	1	4			2	10			2			12	5		7		
New Mexico.....	6			2				4						2	1		1		
V. PACIFIC.																			
Idaho.....	13	6	4	3				4						4		1			3
Utah.....	36	15	2	3		1					11			5	2	1	2		
Arizona.....	20	4						9	1		6			3			3		
Nevada.....	12	1						11						1			1		
Washington.....	55	5	8	13				21	1		7			8	3		5		
Oregon.....	18			6	2			5				1	4	6	2	1	3		
California.....	123	8	15	42	16	3	13	20			6			65	18	4	43		

TABLE 7.—Number of pupils enrolled in vocational courses and in teacher-training courses, by States, for fiscal year ended June 30, 1918.

Region or State.	Number of pupils enrolled in vocational courses.														Number of pupils enrolled in teacher-training courses.				
	Total.			Agricultural.		Trade or industrial.						Home economics.							
	Both sexes.	Male.	Fe- male.	Male.	Fe- male.	All-day schools.		Part-time schools.		Evening schools.		All-day schools.		Evening schools.		Agricultural.	Trade or industrial.	Home economics.	Un- classified.
						Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.				
United States.....	164,186	100,760	62,941	13,901	1,286	14,645	3,883	32,605	20,400	39,580	6,703	25	8,308	4	22,356	1,534	1,091	3,319	635
REGIONS.																			
I. North Atlantic.....	105,016	60,825	44,191	3,569	80	10,639	2,400	28,185	17,183	18,423	5,071	.....	4,186	4	15,266	155	450	409	.....
II. Southern.....	9,476	6,119	3,357	3,922	726	399	265	169	278	1,604	90	25	865	.....	1,133	193	65	1,339	.....
III. East Central.....	37,145	24,307	12,833	4,247	434	2,489	1,093	4,120	2,278	13,451	1,480	.....	1,801	.....	5,752	1,010	371	376	325
IV. West Central.....	4,689	3,262	922	880	41	62	.....	43	50	2,272	23	.....	753	.....	55	79	18	951	258
V. Pacific.....	7,880	6,247	1,633	1,283	5	1,056	125	83	606	3,825	44	.....	703	.....	150	97	187	244	52
I. NORTH ATLANTIC.																			
Maine.....	1,743	1,145	593	246	.....	524	.....	.....	.....	375	25	.....	257	.....	316	49	4	62	.....
New Hampshire.....	741	723	18	251	.....	287	.....	185	.....	.....	.....	.....	18	.....	.....	8	.....	27	.....
Vermont.....	631	185	446	96	.....	.....	.....	33	.....	56	.....	.....	446	.....	.....	6	.....	44	.....
Massachusetts.....	19,027	10,451	8,576	505	.....	1,871	845	3,992	.....	4,083	142	.....	583	.....	7,006	.....	93	36	.....
Rhode Island.....	711	660	51	.....	.....	.....	.....	175	.....	485	51	.....	.....	.....	.....	.....	.....	.....	.....
Connecticut.....	6,563	4,993	1,565	185	31	978	132	322	.....	3,513	989	.....	247	.....	166	.....	9	.....	.....
New York.....	8,350	6,977	1,373	1,011	20	4,491	1,353	.....	.....	1,475	.....	.....	.....	.....	.....	38	186	171	.....
New Jersey.....	9,433	4,265	5,168	314	13	1,161	.....	236	71	2,550	408	.....	732	4	3,944	22	61	37	.....
Pennsylvania.....	56,540	30,362	26,178	850	2	1,327	70	23,242	17,117	4,943	3,408	.....	1,747	.....	3,834	15	85	.....	.....
Delaware.....	365	533	130	44	14	.....	.....	494	.....	494	.....	.....	116	.....	.....	7	12	32	.....
Maryland.....	609	521	88	67	.....	.....	.....	.....	.....	454	48	.....	40	.....	.....	10	.....	.....	.....
II. SOUTHERN.																			
Virginia.....	1,612	823	789	229	38	60	.....	1	168	533	.....	.....	.....	.....	583	.....	.....	.....	.....
North Carolina.....	337	303	34	231	.....	.....	.....	.....	.....	72	.....	.....	34	.....	.....	10	.....	30	.....
South Carolina.....	334	322	12	297	12	.....	.....	.....	.....	25	.....	.....	.....	.....	.....	7	.....	.....	.....
Georgia.....	2,541	1,595	946	823	322	204	.....	99	79	444	90	25	312	.....	143	19	10	87	.....
Florida.....	206	72	134	50	15	.....	.....	.....	.....	22	.....	.....	119	.....	.....	.....	.....	.....	.....
Tennessee.....	430	349	81	349	81	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alabama.....	440	357	83	193	38	31	.....	31	31	99	.....	.....	14	.....	.....	11	47	166	.....
Mississippi.....	829	764	65	725	.....	.....	.....	33	.....	.....	.....	.....	65	.....	.....	47	.....	91	.....

Arkansas.....	497	250	247	195	59	21			34			27		181				
Louisiana.....	886	389	517	369		265						252		25		8	335	
Texas.....	1,364	915	449	460	161	80			375			42		246	74		580	
III. EAST CENTRAL.																		
West Virginia.....	1,298	961	335	106	76				855	1				258	7		15	
Ohio.....	8,736	5,749	2,987	301	62	465	375	713	266	4,270	21	213		2,050	27			
Kentucky.....	788	283	520	131		89		16		32		502		18	1 21			
Michigan.....	6,618	4,375	2,243	1,827	47	69	53	255		2,224	862	387		894	45	15	81	
Indiana.....	7,765	5,417	2,348	813		866		189	358	3,549	73	82		1,835			272	
Wisconsin.....	7,017	3,966	3,051	303	188	557	225	1,857	1,536	1,249	523	73		506				
Illinois.....	1,855	1,544	811	323		16		559		646		120		191	60	4	129	
Minnesota.....	1,542	642	900	325	61	224	297		118	93		424			850	352	151	
Iowa.....	130	130		78		18		5		29								
Missouri.....	1,398	1,255	143	40		185	143	526		504								53
IV. WEST CENTRAL.																		
North Dakota.....	435	(2)	(2)	(2)	(2)	(2)	(2)			(2)	(2)	(2)						145
South Dakota.....																		
Nebraska.....	561	531	30	76						455	1			44			67	
Kansas.....	505	505		82				33		390							620	
Oklahoma.....	700	276	424	276	19					405								113
Montana.....	448	192	256	179		13				256				15	18		67	
Wyoming.....	364	287	77	102				15		170	14			55	10		12	
Colorado.....	1,527	1,392	135	165	22	27			50	1,200	8			55	9		175	
New Mexico.....	79	79				22				57					11		10	
V. PACIFIC.																		
Idaho.....	243	243		222		21				115						5		52
Utah.....	1,186	926	260	706		68		37		88		260			30	19	16	
Arizona.....	447	194	253	106						37		216					34	
Nevada.....	251	247	4	12						235	4						16	
Washington.....	2,901	2,682	219	65	5	128				2,489	3	211			14	18	175	
Oregon.....	414	264	150			208				56				150	6	40	86	
California.....	2,433	1,691	747	172		631	125	46	606	842		16			47	105	17	

¹ No report for one center.

² Number of pupils not reported separately by sex: Agriculture, 266; trade or industrial, all day, 68; evening, 45; home economics, all day, 106.

*No report.

Mississippi.....	58	34	24	30	17			1			1	3	6			5	3	2
Arkansas.....	15	15		11		1				1		1		1				
Louisiana.....	21	21		16		2						4				5	5	
Texas.....	61	47	14	35	6		1		2	3		3	5	4		2	2	
III. EAST CENTRAL.																		
West Virginia.....	24	20	4	11			1			5	2			4	1	2	1	1
Ohio.....	132	59	73	18	64	2	1	3		21		7	8	8		1	1	
Kentucky.....	17	17		8		2						7				2	2	
Michigan.....	60	56	4	43	1	1		3		2	2	4	1	3		3	3	
Indiana.....	88	88		35		3		10		24		3		13		3	3	
Wisconsin ¹																		
Illinois.....	86	45	41	15		1		9		14		3		3	41	3	3	
Minnesota.....	65	59	6	12	4	4		2		35		6	2			3	3	
Iowa.....	10	10		6		1		1		2								
Missouri.....	18	18		3		4		1		10						1	1	
IV. WEST CENTRAL.																		
North Dakota.....	51	14	37	7	10	2	11			1		4	16			1	1	
South Dakota.....	4	2	2		1					1	1	1				3	3	
Nebraska.....	7	7		2						4		1				1	1	
Kansas.....	8	8		6				1		1						2	2	
Oklahoma.....	28	26	2	13	1							13	1					
Montana.....	14	13	1	9		1	1					3						
Wyoming.....	16	10	6	4	3			1		3		1	3	1		1	1	
Colorado.....	20	16	4	4	2	2		2		6		2	2			1	1	
New Mexico.....	2	2				1				1						1	1	
V. PACIFIC.																		
Idaho.....	9	5	4	4	4	1										2	2	
Utah.....	30	28	2	15	2	3		1		3		6				3	3	
Arizona.....	50	14	36	4	2		12			5	7	5	15			1	1	
Nevada.....	12	11	1	1	1					10						1	1	
Washington.....	19	18	1	5		5				5		3	1			2	2	
Oregon.....	7	7				4				2				1		1	1	
California.....	46	43	3	10	2	12	1	5		10		1		5		9	8	1

¹No report.

102 REPORT OF FEDERAL BOARD FOR VOCATIONAL EDUCATION.

TABLE 9.—Number of State directors and supervisors paid or reimbursed out of Federal, State, and local funds, and number giving full time and part time to supervision, by States, for fiscal year ended June 30, 1918.

Region or State.	Number of State directors and supervisors.							
	Total.	Source of salary.					Apportionment of time.	
		Federal and State or local funds.	State funds only.	Local funds only.	State and local funds only.	No report.	Give full time to supervision.	Give part time to supervision.
United States.....	139	54	36	13	8	28	63	51
REGIONS.								
I. North Atlantic.....	49	19	19	5		6	31	13
II. Southern.....	22	10	4		3	5	6	9
III. East Central.....	31	11	4	7	3	6	13	15
IV. West Central.....	21	8	4	1	2	6	6	7
V. Pacific.....	16	6	5			5	7	7
I. NORTH ATLANTIC.								
Maine.....	3					3		3
New Hampshire.....	1	1						1
Vermont.....	2	1		1			1	1
Massachusetts.....	10	7				3	6	
Rhode Island.....								
Connecticut.....	10		6	4			10	
New York.....	5	4	1				5	
New Jersey.....	4	3	1				4	
Pennsylvania.....	9		9				4	4
Delaware.....	1	1					1	
Maryland.....	4	2	2					4
II. SOUTHERN.								
Virginia.....	1	1						
North Carolina.....	2	1				1		
South Carolina.....	1	1						1
Georgia.....	3	1	2				1	2
Florida.....	3					3		2
Tennessee.....								
Alabama.....					3	1		
Mississippi.....	2	2					2	
Arkansas.....	1	1						
Louisiana.....	1	1					1	
Texas.....	4	2	2				2	2
III. EAST CENTRAL.								
West Virginia.....	5	2	1					3
Ohio.....	4			1	1	2	2	1
Kentucky.....	2	1			1			2
Michigan.....	3	1				2		3
Indiana.....	3		2		1		3	
Wisconsin.....	6	1	1	4			5	1
Illinois.....	3	1		2			2	
Minnesota.....	3	3						3
Iowa.....	1	1						1
Missouri.....	1	1					1	
IV. WEST CENTRAL.								
North Dakota.....	4					4		
South Dakota.....	2		1		2			
Nebraska.....	3	1	1	1			1	2
Kansas.....	1	1						1
Oklahoma.....	2	2					2	
Montana.....	3	1				2		1
Wyoming.....	3	2	1				1	2
Colorado.....	1	1						1
New Mexico.....	2		2				2	
V. PACIFIC.								
Idaho.....	1	1						1
Utah.....	4	1	2			1	3	1
Arizona.....	1	1						1
Nevada.....	1		1				1	
Washington.....	2	2					1	
Oregon.....	4					4		2
California.....	3	2	1				2	1

¹ No supervisors.

TABLE 10.—Amount of salaries of State directors and supervisors paid or reimbursed out of Federal, State, and local funds, by States, for fiscal year ended June 30, 1918.

Region or State.	Amount of salaries paid or reimbursed.				
	Total.	Source of salaries.			
		Federal funds.	State funds.	Local funds.	No report.
United States.....	\$241,081.71	\$40,842.28	\$140,611.12	\$39,103.31	\$20,525.00
REGIONS.					
I. North Atlantic.....	116,149.82	14,007.58	71,992.24	14,200.00	15,950.00
II. Southern.....	25,666.32	8,952.09	12,832.92	1,881.31	2,000.00
III. East Central.....	47,140.59	5,924.29	23,094.30	18,122.00	.....
IV. West Central.....	20,650.02	6,262.50	9,412.52	4,900.00	75.00
V. Pacific.....	31,474.96	5,695.82	23,279.14	.....	2,500.00
I. NORTH ATLANTIC.					
Maine.....	5,700.00	.....	.....	.....	5,700.00
New Hampshire.....	3,000.00	250.00	250.00	2,500.00	.....
Vermont.....	3,575.16	1,037.58	1,037.58	1,500.00	.....
Massachusetts.....	23,950.00	5,465.00	8,235.00	.....	10,250.00
Rhode Island.....	.....	.....	.....	.....	.....
Connecticut.....	24,550.00	.....	15,000.00	9,550.00	.....
New York.....	13,624.66	3,017.50	10,607.16	.....	.....
New Jersey.....	10,200.00	2,850.00	7,350.00	.....	.....
Pennsylvania.....	22,100.00	.....	22,100.00	.....	.....
Delaware.....	1,500.00	750.00	750.00	.....	.....
Maryland.....	7,950.00	637.50	6,662.50	650.00	.....
II. SOUTHERN.					
Virginia.....	1,041.66	520.83	520.83	.....	.....
North Carolina.....	3,400.00	1,300.00	1,300.00	800.00	.....
South Carolina.....	2,162.62	1,081.31	.....	1,081.31	.....
Georgia.....	3,150.00	875.00	2,275.00	.....	.....
Florida.....	.....	.....	.....	.....	.....
Alabama.....	.....	.....	.....	.....	.....
Mississippi.....	5,333.33	1,666.66	1,666.67	.....	2,000.00
Arkansas.....	1,600.00	400.00	1,200.00	.....	.....
Louisiana.....	2,200.00	1,100.00	1,100.00	.....	.....
Texas.....	6,778.71	2,008.29	4,770.42	.....	.....
Tennessee.....	.....	.....	.....	.....	.....
III. EAST CENTRAL.					
West Virginia.....	1,600.00	800.00	800.00	.....	.....
Ohio.....	1,250.00	.....	.....	1,250.00	.....
Kentucky.....	437.50	218.75	218.75	.....	.....
Michigan.....	661.13	330.56	330.57	.....	.....
Indiana.....	12,050.00	.....	10,800.00	1,250.00	.....
Wisconsin.....	16,282.00	220.00	5,350.00	10,712.00	.....
Illinois.....	4,410.00	900.00	.....	3,510.00	.....
Minnesota.....	5,449.96	1,724.98	3,724.98	.....	.....
Iowa.....	3,400.00	1,530.00	1,870.00	.....	.....
Missouri.....	1,600.00	200.00	.....	1,400.00	.....
IV. WEST CENTRAL.					
North Dakota.....	.....	.....	.....	.....	.....
South Dakota.....	.....	.....	.....	.....	.....
Nebraska.....	5,900.00	1,250.00	1,250.00	3,400.00	.....
Kansas.....	3,500.00	1,000.00	1,000.00	1,500.00	.....
Oklahoma.....	3,600.00	2,700.00	900.00	.....	.....
Montana.....	900.00	450.00	450.00	.....	.....
Wyoming.....	3,150.00	237.50	2,837.50	.....	75.00
Colorado.....	2,500.00	625.00	1,875.00	.....	.....
New Mexico.....	1,100.02	.....	1,100.02	.....	.....
V. PACIFIC.					
Idaho.....	424.96	212.48	212.48	.....	.....
Utah.....	10,250.00	1,250.00	6,500.00	.....	2,500.00
Arizona.....	3,000.00	.....	3,000.00	.....	.....
Nevada.....	2,000.00	.....	2,000.00	.....	.....
Washington.....	5,800.00	1,233.34	4,566.66	.....	.....
Oregon.....	.....	.....	.....	.....	.....
California.....	10,000.00	3,000.00	7,000.00	.....	.....

TABLE 11.—Allotment to the States for the fiscal year 1917-18.

Region or State.	Allotment for the fiscal year 1917-18, ending June 30.											
	Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher-training.	Allotted on the basis of population.				Special allotment to guarantee minimum of \$5,000.			
					Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher-training.	Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher-training.
United States.....	\$1,655,586.72	\$547,027.79	\$564,444.89	\$544,114.04	\$1,500,000.00	\$500,000.00	\$500,000.00	\$500,000.00	\$155,586.72	\$47,027.79	\$64,444.89	\$44,114.04
REGIONS.												
I. North Atlantic.....	505,023.06	98,118.69	244,998.63	161,905.74	460,284.22	75,303.08	235,669.24	149,311.90	44,738.84	22,815.61	9,329.39	12,593.84
II. Southern.....	369,202.10	181,957.12	64,176.94	123,068.04	356,548.26	181,957.12	52,416.76	122,174.38	12,653.84	.....	11,760.18	893.66
III. East Central.....	482,429.66	162,367.80	159,896.67	160,165.19	480,128.05	162,367.80	157,595.06	160,165.19	2,301.61	.....	2,301.61	.....
IV. West Central.....	165,560.99	64,950.92	45,837.82	54,772.25	117,765.43	55,288.45	22,377.10	40,099.88	47,795.56	9,662.47	23,460.72	14,672.37
V. Pacific.....	133,370.91	39,633.26	49,534.83	44,202.82	85,274.04	25,083.55	31,941.84	28,248.65	48,096.87	14,549.71	17,592.99	15,954.17
I. NORTH ATLANTIC.												
Maine.....	15,000.00	5,000.00	5,000.00	5,000.00	12,216.92	3,656.90	4,509.60	4,050.42	2,783.08	1,343.10	490.40	949.58
New Hampshire.....	15,000.00	5,000.00	5,000.00	5,000.00	7,143.01	1,777.88	3,015.90	2,349.23	7,856.99	3,222.12	1,984.10	2,650.77
Vermont.....	15,000.00	5,000.00	5,000.00	5,000.00	5,834.24	1,894.80	1,997.32	1,942.12	9,165.76	3,105.20	3,002.68	3,057.88
Massachusetts.....	60,316.96	5,000.00	36,949.59	18,367.37	57,759.25	2,442.29	36,949.59	18,367.37	2,557.71	2,557.71	.....	.....
Rhode Island.....	16,202.71	5,000.00	6,202.71	5,000.00	9,345.15	181.93	6,202.71	2,960.51	6,857.56	4,818.07	.....	2,039.49
Connecticut.....	22,902.76	5,000.00	11,820.58	6,082.18	19,067.09	1,164.33	11,820.58	6,082.18	3,835.67	3,835.67	.....	.....
New York.....	154,210.39	19,535.60	84,950.35	49,724.44	154,210.39	19,535.60	84,950.35	49,724.44	.....	.....	.....	.....
New Jersey.....	42,773.58	6,382.69	22,547.95	13,842.94	42,773.58	6,382.69	22,547.95	13,842.94	.....	.....	.....	.....
Pennsylvania.....	127,312.10	30,744.79	54,745.99	41,821.32	127,312.10	30,744.79	54,745.99	41,821.32	.....	.....	.....	.....
Delaware.....	15,000.00	5,000.00	5,000.00	5,000.00	3,317.93	1,066.26	1,147.79	1,103.88	11,682.07	3,933.74	3,852.21	3,896.12
Maryland.....	21,304.56	6,455.61	7,781.46	7,067.49	21,304.56	6,455.61	7,781.46	7,067.49	.....	.....	.....	.....
II. SOUTHERN.												
Virginia.....	32,942.00	16,059.97	5,633.75	11,248.28	32,942.00	16,059.97	5,633.75	11,248.28	.....	.....	.....	.....
North Carolina.....	36,164.85	19,127.21	5,000.00	12,037.64	34,930.00	19,127.21	3,765.15	12,037.64	1,234.85	.....	1,234.85	.....
South Carolina.....	26,344.08	13,075.96	5,000.00	8,268.12	24,002.15	13,075.96	2,658.07	8,268.12	2,341.93	.....	2,341.93	.....
Georgia.....	41,581.59	20,977.89	6,368.18	14,235.52	41,581.59	20,977.89	6,368.18	14,235.52	.....	.....	.....	.....

Florida.....	15,405.79	5,405.79	5,000.00	5,000.00	12,102.20	5,405.79	2,590.07	4,106.34	3,303.59	.....	2,409.93	893.66
Tennessee.....	34,802.10	17,667.51	5,214.25	11,920.34	34,802.10	17,667.51	5,214.25	11,920.34	.....	.....	.....	.....
Alabama.....	34,575.42	17,909.85	5,000.00	11,665.57	33,954.83	17,909.85	4,379.41	11,665.57	620.59	.....	620.59	.....
Mississippi.....	30,912.95	16,107.79	5,000.00	9,805.16	28,363.88	16,107.79	2,450.93	9,805.16	2,549.07	.....	2,549.07	.....
Arkansas.....	27,898.97	13,898.67	5,000.00	8,590.29	24,885.15	13,898.67	2,396.19	8,590.29	2,603.81	.....	2,603.81	.....
Louisiana.....	26,659.16	11,751.76	5,870.05	9,037.35	26,659.16	11,751.76	5,870.05	9,037.35	.....	.....	.....	.....
Texas.....	62,325.20	29,974.72	11,090.71	21,259.77	62,325.20	29,974.72	11,090.71	21,259.77	.....	.....	.....	.....
III. EAST CENTRAL.												
West Virginia.....	21,722.27	10,059.77	5,000.00	6,662.50	19,420.66	10,059.77	2,698.39	6,662.50	2,301.61	.....	2,301.61	.....
Ohio.....	78,815.42	21,297.12	31,508.60	26,009.70	78,815.42	21,297.12	31,508.60	26,009.70	.....	.....	.....	.....
Kentucky.....	36,634.04	17,573.48	6,566.70	12,493.86	36,634.04	17,573.48	6,566.70	12,493.86	.....	.....	.....	.....
Michigan.....	46,048.41	15,026.98	15,688.95	15,332.48	46,048.41	15,026.98	15,688.95	15,332.48	.....	.....	.....	.....
Indiana.....	44,034.97	15,775.85	13,522.97	14,736.15	44,034.97	15,775.85	13,522.97	14,736.15	.....	.....	.....	.....
Wisconsin.....	38,078.05	13,470.82	11,873.55	12,733.68	38,078.05	13,470.82	11,873.55	12,733.68	.....	.....	.....	.....
Illinois.....	93,772.25	21,901.83	41,105.92	30,764.50	93,772.25	21,901.83	41,105.92	30,764.50	.....	.....	.....	.....
Minnesota.....	33,793.59	12,415.82	10,052.58	11,325.19	33,793.59	12,415.82	10,052.58	11,325.19	.....	.....	.....	.....
Iowa.....	35,829.39	15,650.98	8,039.92	12,138.49	35,829.39	15,650.98	8,039.92	12,138.49	.....	.....	.....	.....
Missouri.....	53,701.27	19,195.15	16,537.48	17,968.64	53,701.27	19,195.15	16,537.48	17,968.64	.....	.....	.....	.....
IV. WEST CENTRAL.												
North Dakota.....	15,205.99	5,205.99	5,000.00	5,000.00	9,102.05	5,205.99	747.61	3,148.45	6,103.94	.....	4,252.39	1,851.55
South Dakota.....	15,139.07	5,139.07	5,000.00	5,000.00	9,231.27	5,139.07	906.47	3,185.73	5,907.80	.....	4,093.53	1,814.27
Nebraska.....	20,434.70	8,929.91	5,000.00	6,504.79	19,109.74	8,929.91	3,675.04	6,504.79	1,324.96	.....	1,324.96	.....
Kansas.....	27,193.28	12,129.54	5,837.82	9,225.92	27,193.28	12,129.54	5,837.82	9,225.92	.....	.....	.....	.....
Oklahoma.....	27,587.95	13,546.41	5,000.00	9,041.54	26,372.98	13,546.41	3,785.03	9,041.54	1,214.97	.....	1,214.97	.....
Montana.....	15,000.00	5,000.00	5,000.00	5,000.00	6,087.47	2,458.34	1,577.36	2,051.77	8,912.53	2,541.66	3,422.64	2,948.23
Wyoming.....	15,000.00	5,000.00	5,000.00	5,000.00	2,348.37	1,041.00	510.98	796.39	12,651.63	3,959.00	4,489.02	4,203.61
Colorado.....	15,000.00	5,000.00	5,000.00	5,000.00	13,139.58	3,993.85	4,786.21	4,359.52	1,860.42	1,006.15	213.79	640.48
New Mexico.....	15,000.00	5,000.00	5,000.00	5,000.00	5,180.69	2,844.34	550.58	1,785.77	9,819.31	2,155.66	4,449.42	3,214.23
V. PACIFIC.												
Idaho.....	15,000.00	5,000.00	5,000.00	5,000.00	5,193.53	2,590.70	826.37	1,776.46	9,806.47	2,409.30	4,173.63	3,223.54
Utah.....	15,000.00	5,000.00	5,000.00	5,000.00	6,112.15	2,030.61	2,044.51	2,037.03	8,887.85	2,969.39	2,955.49	2,962.97
Arizona.....	15,000.00	5,000.00	5,000.00	5,000.00	9,292.42	1,429.56	747.89	1,114.97	11,707.58	3,570.44	4,252.11	3,885.03
Nevada.....	15,000.00	5,000.00	5,000.00	5,000.00	1,298.87	694.12	158.03	446.72	13,701.13	4,305.88	4,841.97	4,553.28
Washington.....	18,825.02	5,435.38	7,158.87	6,230.77	18,825.02	5,435.38	7,158.87	6,230.77	.....	.....	.....	.....
Oregon.....	15,000.00	5,000.00	5,000.00	5,000.00	11,006.16	3,705.30	3,630.21	3,670.65	3,993.84	1,294.70	1,369.79	1,329.35
California.....	39,545.89	9,197.88	17,375.96	12,972.05	39,545.89	9,197.88	17,375.96	12,972.05	.....	.....	.....	.....

TABLE 12.—*Allotment to the States for the fiscal year 1918-19.*

Allotment for the fiscal year 1918-19, ending June 30.												
Region or State.	Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher training.	Allotted on the basis of population.				Special allotment to guarantee minimum of \$5,000.			
					Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher training.	Total.	Agriculture: For salaries of teachers, supervisors, and directors.	Trade, industry, and home economics: For salaries of teachers.	Teacher training: For salaries of teachers and maintenance of teacher training.
United States.....	\$2,307,460.44	\$782,575.76	\$794,463.33	\$730,421.35	\$2,200,000.00	\$750,000.00	\$750,000.00	\$700,000.00	\$107,460.44	\$32,575.76	\$44,463.33	\$30,421.35
REGIONS.												
I. North Atlantic.....	706,764.31	130,163.37	359,262.34	217,338.60	675,495.11	112,954.61	353,503.86	209,036.64	31,269.20	17,208.76	5,758.48	8,301.96
II. Southern.....	527,462.07	272,935.68	83,482.26	171,044.13	522,604.96	272,935.68	78,625.15	171,044.13	4,857.11	.....	4,857.11	.....
III. East Central.....	705,127.99	243,551.70	237,345.02	224,231.27	704,175.57	243,551.70	236,392.60	224,231.27	952.42	.....	952.42	.....
IV. West Central.....	206,327.81	88,417.17	52,126.15	65,784.49	172,638.18	82,932.69	33,565.64	56,139.85	33,689.63	5,484.48	18,560.51	9,644.64
V. Pacific.....	161,778.26	47,507.84	62,247.56	52,022.86	125,086.18	37,625.32	47,912.75	39,548.11	36,692.08	9,882.52	14,334.81	12,474.75
I. NORTH ATLANTIC.												
Maine.....	17,920.34	5,485.35	6,764.40	5,670.59	17,920.34	5,485.35	6,764.40	5,670.59	.....	.....	.....	.....
New Hampshire.....	15,000.00	5,000.00	5,000.00	5,000.00	10,479.59	2,666.82	4,523.85	3,288.92	4,520.41	2,333.18	476.15	1,711.08
Vermont.....	15,000.00	5,000.00	5,000.00	5,000.00	8,557.17	2,842.21	2,995.99	2,718.97	6,442.83	2,157.79	2,004.01	2,281.03
Massachusetts.....	86,138.70	5,000.00	55,424.38	25,714.32	84,802.14	3,663.44	55,424.38	25,714.32	1,336.56	1,336.56	.....	.....
Rhode Island.....	19,304.07	5,000.00	9,304.07	5,000.00	13,721.68	272.89	9,304.07	4,144.72	5,582.39	4,727.11	.....	855.28
Connecticut.....	31,245.91	5,000.00	17,730.86	8,515.05	27,992.41	1,746.50	17,730.86	8,515.05	3,253.50	3,253.50	.....	.....
New York.....	226,343.14	29,303.40	127,425.53	69,614.21	226,343.14	29,303.40	127,425.53	69,614.21	.....	.....	.....	.....
New Jersey.....	62,776.07	9,574.03	33,821.93	19,380.11	62,776.07	9,574.03	33,821.93	19,380.11	.....	.....	.....	.....
Pennsylvania.....	186,786.00	46,117.18	82,118.98	58,549.84	186,786.00	46,117.18	82,118.98	58,549.84	.....	.....	.....	.....
Delaware.....	15,000.00	5,000.00	5,000.00	5,000.00	4,866.49	1,599.38	1,721.68	1,545.43	10,133.51	3,400.62	3,278.32	3,451.57
Maryland.....	31,250.08	9,683.41	11,672.19	9,894.48	31,250.08	9,683.41	11,672.19	9,894.48	.....	.....	.....	.....
II. SOUTHERN.												
Virginia.....	48,288.17	24,089.95	8,450.63	15,747.59	48,288.17	24,089.95	8,450.63	15,747.59	.....	.....	.....	.....
North Carolina.....	51,191.24	28,690.82	5,647.73	16,852.69	51,191.24	28,690.82	5,647.73	16,852.69	.....	.....	.....	.....
South Carolina.....	36,189.30	19,613.94	5,000.00	11,575.36	35,176.41	19,613.94	3,987.11	11,575.36	1,012.89	.....	1,012.89	.....
Georgia.....	60,948.84	31,466.84	9,552.27	19,929.73	60,948.84	31,466.84	9,552.27	19,929.73	.....	.....	.....	.....

Florida.....	18,857.55	8,108.68	5,000.00	5,748.87	17,742.65	8,108.68	3,885.10	5,748.87	1,114.90	1,114.90		
Tennessee.....	51,011.12	26,501.27	7,821.37	16,688.48	51,011.12	26,501.27	7,821.37	16,688.48				
Alabama.....	49,765.68	26,864.77	6,569.12	16,331.79	49,765.68	26,864.77	6,569.12	16,331.79				
Mississippi.....	42,888.92	24,161.69	5,000.00	13,727.23	41,565.31	24,161.69	3,676.39	13,727.23	1,323.61	1,323.61		
Arkansas.....	37,874.42	20,848.01	5,000.00	12,026.41	36,468.71	20,848.01	3,594.29	12,026.41	1,405.71	1,405.71		
Louisiana.....	39,085.00	17,627.63	8,805.07	12,652.30	39,085.00	17,627.63	8,805.07	12,652.30				
Texas.....	91,361.83	44,962.08	16,636.07	29,763.68	91,361.83	44,962.08	16,636.07	29,763.68				
III. EAST CENTRAL												
West Virginia.....	29,417.16	15,089.66	5,000.00	9,327.50	28,464.74	15,089.66	4,047.58	9,327.50	952.42	952.42		
Ohio.....	115,622.17	31,945.68	47,262.90	36,413.59	115,622.17	31,945.68	47,262.90	36,413.59				
Kentucky.....	53,701.68	26,360.22	9,850.05	17,491.41	53,701.68	26,360.22	9,850.05	17,491.41				
Michigan.....	67,539.35	22,540.46	23,533.42	21,465.47	67,539.35	22,540.46	23,533.42	21,465.47				
Indiana.....	64,578.82	23,663.77	20,284.45	20,630.60	64,578.82	23,663.77	20,284.45	20,630.60				
Wisconsin.....	55,843.72	20,206.23	17,810.33	17,827.16	55,843.72	20,206.23	17,810.33	17,827.16				
Illinois.....	137,581.93	32,852.75	61,658.88	43,070.30	137,581.93	32,852.75	61,658.88	43,070.30				
Minnesota.....	49,557.88	18,623.74	15,078.87	15,855.27	49,557.88	18,623.74	15,078.87	15,855.27				
Iowa.....	52,530.24	23,476.47	12,059.89	16,993.88	52,530.24	23,476.47	12,059.89	16,993.88				
Missouri.....	78,755.04	28,792.72	24,806.23	25,156.09	78,755.04	28,792.72	24,806.23	25,156.09				
IV. WEST CENTRAL												
North Dakota.....	17,808.99	7,898.99	5,000.00	5,000.00	13,338.23	7,808.99	1,121.41	4,407.83	4,470.76	3,878.59	592.17	
South Dakota.....	17,708.61	7,708.61	5,000.00	5,000.00	13,528.33	7,708.61	1,359.70	4,460.02	4,180.28	3,640.30	539.98	
Nebraska.....	28,014.13	13,394.86	5,512.56	9,106.71	28,014.13	13,394.86	5,512.56	9,106.71				
Kansas.....	39,867.34	18,194.32	8,756.73	12,916.29	39,867.34	18,194.32	8,756.73	12,916.29				
Oklahoma.....	38,655.31	20,319.61	5,677.54	12,658.16	38,655.31	20,319.61	5,677.54	12,658.16				
Montana.....	15,000.00	5,000.00	5,000.00	5,000.00	8,926.03	3,687.52	2,366.03	2,872.48	6,073.97	1,312.48	2,633.97	2,127.52
Wyoming.....	15,000.00	5,000.00	5,000.00	5,000.00	3,442.91	1,561.49	766.47	1,114.95	11,557.09	3,438.51	4,233.53	3,885.05
Colorado.....	19,273.43	5,990.78	7,179.32	6,103.33	19,273.43	5,990.78	7,179.32	6,103.33				
New Mexico.....	15,000.00	5,000.00	5,000.00	5,000.00	7,592.47	4,266.51	825.88	2,500.08	7,407.53	733.49	4,174.12	2,499.92
V. PACIFIC												
Idaho.....	15,000.00	5,000.00	5,000.00	5,000.00	7,612.65	3,886.05	1,239.55	2,487.05	7,387.35	1,113.95	3,760.45	2,512.95
Utah.....	15,000.00	5,000.00	5,000.00	5,000.00	8,964.52	3,045.92	3,066.76	2,851.84	6,035.48	1,954.08	1,933.24	2,148.16
Arizona.....	15,000.00	5,000.00	5,000.00	5,000.00	4,827.12	2,144.33	1,121.83	1,560.96	10,172.88	2,855.67	3,878.17	3,439.04
Nevada.....	15,000.00	5,000.00	5,000.00	5,000.00	1,903.63	1,041.18	237.05	625.40	13,096.37	3,958.82	4,762.95	4,374.60
Washington.....	27,614.44	8,153.07	10,738.30	8,723.07	27,614.44	8,153.07	10,738.30	8,723.07				
Oregon.....	16,142.18	5,557.95	5,445.32	5,138.91	16,142.18	5,557.95	5,445.32	5,138.91				
California.....	58,021.64	13,796.82	26,063.94	18,160.88	58,021.64	13,796.82	26,063.94	18,160.88				

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TABLE 13.—Amount expended for home economics compared with 20 per cent of the total allotment for trade, industry, and home economics, and amount expended for all-day and evening schools compared with 66⅔ per cent of the total, for the fiscal year ended June 30, 1918.

Region or State.	Allotment for trade, industry, and home economics for fiscal year ended June 30, 1918.				
	Total.	Home economics schools.		All-day and evening schools.	
		Maximum amount available, 20 per cent of total.	Amount expended.	Maximum amount available, 66⅔ per cent of total.	Amount expended.
United States.....	\$564,444.89	\$112,888.98	\$60,460.46	\$376,296.59	\$276,650.29
REGION.					
I. North Atlantic.....	244,998.63	48,999.73	27,274.96	163,332.42	150,213.76
II. Southern.....	64,176.94	12,835.39	7,447.53	42,786.63	22,015.46
III. East Central.....	159,896.67	31,979.33	16,036.67	106,597.78	67,713.21
IV. West Central.....	45,837.82	9,167.56	5,609.77	30,558.55	13,143.43
V. Pacific.....	49,534.83	9,906.97	4,091.53	33,023.22	23,564.43
NORTH ATLANTIC.					
Maine.....	5,000.00	1,000.00	775.25	3,333.33	2,432.00
New Hampshire.....	5,000.00	1,000.00	107.14	3,333.33	3,222.50
Vermont.....	5,000.00	1,000.00	1,000.00	3,333.33	1,438.00
Massachusetts.....	36,949.59	7,389.92	7,389.92	24,633.06	24,633.06
Rhode Island.....	6,202.71	1,240.54	.....	4,135.14	1,262.23
Connecticut.....	11,820.58	2,364.12	2,364.00	7,880.39	7,880.58
New York.....	84,950.35	16,990.07	.....	56,633.57	56,633.57
New Jersey.....	22,547.95	4,509.59	3,824.45	15,031.97	15,031.97
Pennsylvania.....	54,745.99	10,949.20	10,949.20	36,497.33	33,479.55
Delaware.....	5,000.00	1,000.00	865.00	3,333.33	3,128.80
Maryland.....	7,781.46	1,556.29	.....	5,187.64	1,071.50
SOUTHERN.					
Virginia.....	5,633.75	1,126.75	1,126.75	3,755.83	3,603.09
North Carolina.....	5,000.00	1,000.00	298.75	3,333.33	773.75
South Carolina.....	5,000.00	1,000.00	.....	3,333.33	44.00
Georgia.....	6,368.18	1,273.64	1,980.03	4,245.45	5,074.53
Florida.....	5,000.00	1,000.00	452.50	3,333.33	496.05
Tennessee.....	5,214.25	1,042.85	1,280.00	3,476.17	1,605.00
Alabama.....	5,000.00	1,000.00	62.50	3,333.33	1,118.54
Mississippi.....	5,000.00	1,000.00	71.25	3,333.33	71.25
Arkansas.....	5,000.00	1,000.00	737.50	3,333.33	1,241.36
Louisiana.....	5,870.05	1,174.01	905.00	3,913.37	5,870.05
Texas.....	11,090.71	2,218.14	533.25	7,393.81	2,117.84
EAST CENTRAL.					
West Virginia.....	5,000.00	1,000.00	267.00	3,333.33	2,868.31
Ohio.....	31,508.60	6,301.72	2,737.17	21,005.73	13,742.27
Kentucky.....	6,596.70	1,313.34	1,281.85	4,377.80	4,491.85
Michigan.....	15,688.95	3,137.79	3,137.78	10,459.30	10,459.22
Indiana.....	13,522.97	2,704.59	2,704.59	9,015.31	9,015.31
Wisconsin.....	11,873.55	2,374.71	2,374.71	7,915.70	3,957.85
Illinois.....	41,105.92	8,221.18	1,535.09	27,403.95	5,390.69
Minnesota.....	10,052.58	2,010.52	1,998.48	6,701.72	6,658.48
Iowa.....	8,039.92	1,607.98	.....	5,359.95	821.50
Missouri.....	16,537.48	3,307.50	.....	11,024.99	10,307.73
WEST CENTRAL.					
North Dakota.....	5,000.00	1,000.00	1,000.00	3,333.33	2,410.00
South Dakota.....	5,000.00	1,000.00	425.00	3,333.33	425.00
Nebraska.....	5,000.00	1,000.00	191.25	3,333.33	355.00
Kansas.....	5,837.82	1,167.56	.....	3,891.88	628.61
Oklahoma.....	5,000.00	1,000.00	1,700.00	3,333.33	2,630.80
Montana.....	5,000.00	1,000.00	1,000.00	3,333.33	1,562.50
Wyoming.....	5,000.00	1,000.00	573.52	3,333.33	978.52
Colorado.....	5,000.00	1,000.00	720.00	3,333.33	3,333.34
New Mexico.....	5,000.00	1,000.00	.....	3,333.33	819.66
PACIFIC.					
Idaho.....	5,000.00	1,000.00	.....	3,333.33	465.00
Utah.....	5,000.00	1,000.00	1,000.00	3,333.33	2,968.32
Arizona.....	5,000.00	1,000.00	1,000.00	3,333.33	1,805.00
Nevada.....	5,000.00	1,000.00	.....	3,333.33	33,333.33
Washington.....	2,158.87	1,431.77	600.00	4,772.58	4,772.58
Oregon.....	5,000.00	1,000.00	525.00	3,333.33	2,999.55
California.....	17,375.96	3,475.19	966.53	11,583.97	7,220.65

TABLE 14.—Amount expended for training teachers of agriculture, trade and industry, and home economics, compared with 60 per cent of total allotment for maintenance of teacher training, for fiscal year ended June 30, 1918.

Region or State.	Allotment for teacher training for fiscal year ended June 30, 1918.				
	Total.	60 per cent of total.	Amount expended for training teachers of—		
			Agriculture.	Trade and industry.	Home economics.
United States.....	\$544,114.04	\$326,468.38	\$54,887.38	\$38,553.53	\$86,985.72
REGION.					
I. North Atlantic.....	161,905.74	97,143.43	16,484.71	19,557.84	19,521.36
II. Southern.....	123,068.04	73,840.81	12,030.77	3,170.95	26,125.93
III. East Central.....	160,165.19	96,099.11	16,928.95	10,325.43	24,914.13
IV. West Central.....	54,772.25	32,863.34	5,950.45	2,139.77	11,191.18
V. Pacific.....	44,202.82	26,521.69	3,492.50	3,359.54	5,233.12
NORTH ATLANTIC.					
Maine.....	5,000.00	3,000.00	1,200.00	.....	2,200.00
New Hampshire.....	5,000.00	3,000.00	142.12	.....	1,249.23
Vermont.....	5,000.00	3,000.00	2,000.00	641.06	2,000.00
Massachusetts.....	18,367.37	11,020.42	488.27	3,638.96	466.79
Rhode Island.....	5,000.00	3,000.00	.....	.....	.....
Connecticut.....	6,082.13	3,649.31	965.00	1,297.50	1,595.38
New York.....	49,724.44	29,834.66	7,647.31	9,702.05	10,152.06
New Jersey.....	13,842.94	8,305.76	1,342.52	233.88	798.67
Pennsylvania.....	41,821.32	25,092.79	1,955.85	3,064.12	.....
Delaware.....	5,000.00	3,000.00	742.64	980.27	1,059.23
Maryland.....	7,067.49	4,240.49	.....	.....	.....
SOUTHERN.					
Virginia.....	11,248.28	6,748.97	2,115.56	.....	.....
North Carolina.....	12,037.64	7,222.58	960.58	.....	3,124.67
South Carolina.....	8,268.12	4,960.87	.....	.....	.....
Georgia.....	14,235.52	8,541.31	2,676.73	735.67	3,000.00
Florida.....	5,000.00	3,000.00	55.00	.....	1,508.72
Tennessee.....	11,920.34	7,152.20	660.00	450.00	1,280.00
Alabama.....	11,665.57	6,999.34	224.07	1,006.93	2,861.02
Mississippi.....	9,805.16	5,883.10	878.49	78.35	2,750.00
Arkansas.....	8,590.29	5,154.17	72.02	.....	.....
Louisiana.....	9,037.35	5,422.41	120.00	900.00	5,160.87
Texas.....	21,259.77	12,755.86	4,268.32	.....	6,941.15
EAST CENTRAL.					
West Virginia.....	6,662.50	3,997.50	675.00	.....	350.00
Ohio.....	26,009.70	15,605.82	670.00	.....	.....
Kentucky.....	12,493.86	7,496.32	3,725.50	217.20	4,160.23
Michigan.....	15,332.48	9,199.49	2,677.97	1,860.44	3,439.70
Indiana.....	14,736.15	8,841.69	1,461.64	3,025.40	2,577.63
Wisconsin.....	12,733.68	7,640.21	.....	3,820.10	3,294.99
Illinois.....	30,764.50	18,458.70	3,090.00	68.29	5,515.23
Minnesota.....	11,325.19	6,795.11	3,955.00	1,334.00	3,995.58
Iowa.....	12,138.49	7,283.09	.....	.....	.....
Missouri.....	17,968.64	10,781.18	673.84	.....	1,580.77
WEST CENTRAL.					
North Dakota.....	5,000.00	3,000.00	1,875.00	1,350.00	1,775.00
South Dakota.....	5,000.00	3,000.00	898.75	.....	2,000.00
Nebraska.....	6,504.79	3,902.87	.....	.....	.....
Kansas.....	9,225.92	5,535.55	.....	.....	1,720.13
Oklahoma.....	9,041.54	5,424.92	(1)	(1)	(1)
Montana.....	5,000.00	3,000.00	1,576.70	300.00	1,000.00
Wyoming.....	5,000.00	3,000.00	.....	489.77	1,586.25
Colorado.....	5,000.00	3,000.00	1,000.00	.....	3,000.00
New Mexico.....	5,000.00	3,000.00	600.00	.....	109.80
PACIFIC.					
Idaho.....	5,000.00	3,000.00	229.84	30.00	643.33
Utah.....	5,000.00	3,000.00	912.66	464.50	260.00
Arizona.....	5,000.00	3,000.00	.....	.....	558.28
Nevada.....	5,000.00	3,000.00	.....	.....	264.33
Washington.....	6,230.77	3,738.46	386.74	521.01	597.00
Oregon.....	5,000.00	3,000.00	695.81	793.28	1,350.08
California.....	12,972.05	7,783.23	1,267.45	1,550.75	1,560.10

¹ Funds not apportioned.

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TABLE 15.—*For vocational agriculture: Amount sent to State during the fiscal year 1917-18, amount expended during the year, and unexpended balance in State treasury June 30, together with allotment and amount to be sent during the fiscal year 1918-19.*

Region or State.	Amount for agriculture for fiscal year ending June 30.				
	1917-18			1918-19	
	Sent to State.	Expended by State.	Unexpended balance in State treasury June 30 (a-b).	Allotment to State	To be sent to State (d-c).
	a	b	c	d	e
United States.....	\$547,027.79	\$273,587.68	\$273,440.11	\$782,575.76	\$509,135.65
REGION.					
I. North Atlantic.....	98,118.69	78,002.49	20,116.20	130,163.37	110,047.17
II. Southern.....	181,957.12	82,352.41	99,604.71	272,935.68	173,330.97
III. East Central.....	162,367.80	68,575.31	93,792.49	243,551.70	149,759.21
IV. West Central.....	64,950.92	25,892.48	39,058.44	88,417.17	49,358.73
V. Pacific.....	39,633.26	18,764.99	20,868.27	47,507.84	26,639.57
NORTH ATLANTIC.					
Maine.....	5,000.00	1,750.00	3,250.00	5,485.35	2,235.35
New Hampshire.....	5,000.00	5,000.00	.....	5,000.00	5,000.00
Vermont.....	5,000.00	5,000.00	.....	5,000.00	5,000.00
Massachusetts.....	5,000.00	5,000.00	.....	5,000.00	5,000.00
Rhode Island.....	5,000.00	.....	5,000.00	5,000.00	.....
Connecticut.....	5,000.00	845.88	4,154.12	5,000.00	845.88
New York.....	19,535.60	19,535.60	.....	29,303.40	29,303.40
New Jersey.....	6,382.69	6,296.18	86.51	9,574.03	9,487.52
Pennsylvania.....	30,744.79	30,744.79	.....	46,117.18	46,117.18
Delaware.....	5,000.00	1,610.98	3,389.02	5,000.00	1,610.98
Maryland.....	6,455.61	2,219.06	4,236.55	9,083.41	5,446.86
SOUTHERN.					
Virginia.....	16,059.97	10,264.89	5,795.08	24,089.95	18,294.87
North Carolina.....	19,127.21	4,584.76	14,542.45	28,690.82	14,148.37
South Carolina.....	13,075.96	5,295.09	7,780.87	19,613.94	11,833.07
Georgia.....	20,977.89	14,789.26	6,188.63	31,466.84	25,278.21
Florida.....	5,405.79	2,730.27	2,675.52	8,108.68	5,433.16
Tennessee.....	17,667.51	10,189.22	7,478.29	26,501.27	19,022.98
Alabama.....	17,909.85	4,850.00	13,059.85	26,864.77	13,804.92
Mississippi.....	16,107.79	9,567.20	6,540.59	24,161.69	17,621.10
Arkansas.....	13,898.67	3,144.96	10,753.71	20,848.01	10,094.30
Louisiana.....	11,751.76	9,956.78	1,794.98	17,627.63	15,832.65
Texas.....	29,974.72	6,979.98	22,994.74	44,962.08	21,967.34
EAST CENTRAL.					
West Virginia.....	10,059.77	4,482.39	5,577.38	15,089.66	9,512.28
Ohio.....	21,297.12	5,275.09	16,022.03	31,945.68	15,923.65
Kentucky.....	17,573.48	2,091.94	15,481.54	26,360.22	10,878.68
Michigan.....	15,026.98	14,916.90	110.08	22,540.46	22,430.38
Indiana.....	15,775.85	15,775.85	.....	23,663.77	23,663.77
Wisconsin.....	13,470.82	2,928.04	10,542.78	20,206.23	9,663.45
Illinois.....	21,901.83	7,825.12	14,076.71	32,852.75	18,776.04
Minnesota.....	12,415.82	10,800.00	1,615.82	18,623.74	17,007.92
Iowa.....	15,650.98	3,458.32	12,192.66	23,476.47	11,283.81
Missouri.....	19,195.15	1,021.06	18,173.49	28,792.72	10,619.23
WEST CENTRAL.					
North Dakota.....	5,205.99	5,205.98	.01	7,808.99	2,808.98
South Dakota.....	5,139.07	.....	5,139.07	7,708.61	5,569.54
Nebraska.....	8,923.91	1,190.41	7,733.50	13,994.86	7,655.35
Kansas.....	12,129.54	1,760.03	10,369.51	18,194.32	7,824.81
Oklahoma.....	13,546.41	6,150.00	7,396.41	20,319.61	12,923.20
Montana.....	5,000.00	5,000.00	.....	5,000.00	5,000.00
Wyoming.....	5,000.00	2,498.55	2,501.45	5,000.00	2,498.55
Colorado.....	5,000.00	3,737.50	1,262.50	5,990.78	4,728.28
New Mexico.....	5,000.00	350.01	4,649.99	5,000.00	350.01
PACIFIC.					
Idaho.....	5,000.00	3,223.14	1,776.86	5,000.00	3,223.14
Utah.....	5,000.00	5,000.00	.....	5,000.00	5,000.00
Arizona.....	5,000.00	2,732.50	2,267.50	5,000.00	2,732.50
Nevada.....	5,000.00	360.00	4,640.00	5,000.00	360.00
Washington.....	5,435.38	3,002.69	2,432.69	8,153.07	5,720.38
Oregon.....	5,000.00	250.00	4,750.00	5,557.95	807.95
California.....	9,197.88	4,196.66	5,001.22	13,796.82	8,795.60

TABLE 16.—*For trade, industry, and home economics: Amount sent to State during the fiscal year 1917-18, amount expended during the year, and unexpended balance in State treasury June 30, together with allotment and amount to be sent during the fiscal year 1918-19.*

Region or State.	Amount for trade, industry, and home economics, for fiscal year ending June 30.				
	1917-18			1918-19	
	Sent to State.	Expended by State.	Unexpended balance in State treasury June 30, (a-b).	Allotment to State.	To be sent to State (d-c).
	a	b	c	d	e
United States.....	\$564,444.89	\$365,469.41	\$198,975.48	\$794,463.33	\$595,487.85
REGIONS.					
I. North Atlantic.....	244,998.63	208,904.02	36,094.61	359,262.34	323,167.73
II. Southern.....	64,176.94	22,644.02	41,532.92	83,482.26	41,949.34
III. East Central.....	159,896.67	96,273.98	63,622.69	237,345.02	173,722.33
IV. West Central.....	45,837.82	12,917.57	32,920.25	52,126.15	19,205.90
V. Pacific.....	49,534.83	24,729.82	24,805.01	62,247.56	37,442.55
NORTH ATLANTIC.					
Maine.....	5,000.00	2,432.00	2,568.00	6,764.40	4,196.40
New Hampshire.....	5,000.00	5,000.00		5,000.00	5,000.00
Vermont.....	5,000.00	2,964.44	2,035.56	5,000.00	2,964.44
Massachusetts.....	36,949.59	36,949.59		55,424.38	55,424.38
Rhode Island.....	6,202.71	4,454.65	1,748.06	9,304.07	7,556.01
Connecticut.....	11,820.58	11,820.58		17,730.85	17,730.85
New York.....	84,950.35	67,804.74	17,145.61	127,425.53	110,279.92
New Jersey.....	22,547.95	18,531.73	4,016.22	33,821.93	29,805.71
Pennsylvania.....	54,745.99	54,745.99		82,118.98	82,118.98
Delaware.....	5,000.00	3,128.80	1,871.20	5,000.00	3,128.80
Maryland.....	7,781.46	1,071.50	6,709.96	11,672.19	4,962.23
SOUTHERN.					
Virginia.....	5,633.75	4,164.25	1,469.50	8,450.63	6,981.13
North Carolina.....	5,000.00	773.75	4,226.25	5,647.73	1,421.48
South Carolina.....	5,000.00	44.00	4,956.00	5,000.00	44.00
Georgia.....	6,368.18	6,306.14	62.04	9,552.27	9,490.23
Florida.....	5,000.00	496.05	4,503.95	5,000.00	496.05
Tennessee.....	5,214.25	1,605.00	3,609.25	7,821.37	4,212.12
Alabama.....	5,000.00	1,303.54	3,696.46	6,569.12	2,872.66
Mississippi.....	5,000.00	678.72	4,321.28	5,000.00	678.72
Arkansas.....	5,000.00	1,241.36	3,758.64	5,000.00	1,241.36
Louisiana.....	5,870.05	3,613.37	1,656.68	8,505.07	6,848.39
Texas.....	11,090.71	2,117.84	8,972.87	16,636.07	7,663.20
EAST CENTRAL.					
West Virginia.....	5,000.00	2,868.31	2,131.69	5,000.00	2,868.31
Ohio.....	31,508.60	18,673.99	12,834.61	47,262.90	34,428.29
Kentucky.....	6,566.70	4,148.80	2,417.90	9,850.05	7,432.15
Michigan.....	15,688.95	14,697.75	991.20	23,533.42	22,542.22
Indiana.....	13,522.97	12,294.80	1,228.17	20,284.45	19,056.28
Wisconsin.....	11,873.55	11,873.55		17,810.33	17,810.33
Illinois.....	41,105.92	9,977.62	31,128.40	61,658.88	30,530.48
Minnesota.....	10,052.68	7,783.48	2,269.10	15,078.87	12,809.77
Iowa.....	8,039.92	870.25	7,169.67	12,059.89	4,890.22
Missouri.....	16,537.43	13,085.53	3,451.95	24,806.23	21,354.28
WEST CENTRAL.					
North Dakota.....	5,000.00	2,410.00	2,590.00	5,000.00	2,410.00
South Dakota.....	5,000.00	593.75	4,406.25	5,000.00	593.75
Nebraska.....	5,000.00	355.00	4,645.00	5,512.56	867.56
Kansas.....	5,837.82	700.01	5,137.81	8,756.73	3,618.92
Oklahoma.....	5,000.00	1,937.30	3,062.70	5,677.54	2,640.24
Montana.....	5,000.00	1,562.50	3,437.50	5,000.00	1,562.50
Wyoming.....	5,000.00	1,206.02	3,793.98	5,000.00	1,206.02
Colorado.....	5,000.00	3,333.34	1,666.66	7,179.32	5,512.66
New Mexico.....	5,000.00	819.65	4,180.35	5,000.00	819.65
PACIFIC.					
Idaho.....	5,000.00	310.12	4,689.88	5,000.00	310.12
Utah.....	5,000.00	3,362.07	1,637.93	5,000.00	3,362.07
Arizona.....	5,000.00	1,805.00	3,195.00	5,000.00	1,805.00
Nevada.....	5,000.00	3,333.33	1,666.67	5,000.00	3,333.33
Washington.....	7,158.87	4,772.58	2,386.29	10,738.30	8,356.01
Oregon.....	5,000.00	2,999.55	2,000.45	5,445.32	3,444.87
California.....	17,375.96	8,147.17	4,228.79	26,063.94	16,835.15

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TABLE 17.—For teacher training: Amount sent to State during the fiscal year 1917-18, amount expended during the year, and unexpended balance in State treasury June 30, together with allotment and amount to be sent during the fiscal year 1918-19.

Region or State.	Amount for teacher training for fiscal year ending June 30.				
	1917-18			1918-19	
	Sent to State.	Expended by State.	Unexpended balance in State treasury June 30 (a-b).	Allotment to State.	To be sent to State (d-c).
	a	b	c	d	e
United States.....	\$544,114.04	\$196,726.82	\$353,387.22	\$730,421.35	\$377,034.13
REGION.					
I. North Atlantic.....	161,905.74	56,767.21	105,138.53	217,338.60	112,200.07
II. Southern.....	123,068.04	39,179.77	83,888.27	171,044.13	87,155.86
III. East Central.....	160,165.19	51,330.54	108,834.65	224,231.27	115,396.62
IV. West Central.....	54,772.25	31,264.17	23,508.08	65,784.49	42,276.41
V. Pacific.....	44,202.82	12,185.13	32,017.69	52,022.86	20,005.17
NORTH ATLANTIC.					
Maine.....	5,000.00	3,400.00	1,600.00	5,670.59	4,070.59
New Hampshire.....	5,000.00	1,391.35	3,608.65	5,000.00	1,391.35
Vermont.....	5,000.00	4,641.06	358.94	5,000.00	4,641.06
Massachusetts.....	18,367.37	4,594.02	13,773.35	25,714.32	11,940.97
Rhode Island.....	5,000.00	.....	5,000.00	5,000.00	.....
Connecticut.....	6,082.18	3,857.88	2,224.30	8,515.05	6,290.75
New York.....	49,724.44	28,163.92	21,560.52	69,614.21	48,053.69
New Jersey.....	13,842.94	2,376.07	11,466.87	19,380.11	7,913.24
Pennsylvania.....	41,821.52	5,019.97	36,801.55	58,549.84	21,748.49
Delaware.....	5,000.00	2,782.17	2,217.83	5,000.00	2,782.17
Maryland.....	7,067.49	540.77	6,526.72	8,894.48	3,367.76
SOUTHERN.					
Virginia.....	11,248.28	.....	11,248.28	15,747.59	4,499.31
North Carolina.....	12,037.64	5,240.23	6,797.41	16,852.69	10,055.28
South Carolina.....	8,268.12	1,273.07	6,995.05	11,575.36	4,580.31
Georgia.....	14,235.52	6,412.40	7,823.12	19,929.73	12,106.61
Florida.....	5,000.00	1,563.73	3,436.27	5,748.87	2,312.60
Tennessee.....	11,920.34	2,390.00	9,530.34	16,688.48	7,158.14
Alabama.....	11,665.57	3,592.02	8,073.55	16,331.79	8,258.24
Mississippi.....	9,805.16	3,706.83	6,098.33	13,727.23	7,628.90
Arkansas.....	8,590.29	72.02	8,518.27	12,026.41	3,508.14
Louisiana.....	9,037.35	3,720.00	5,317.35	12,652.30	7,334.95
Texas.....	21,259.77	11,209.47	10,050.30	29,763.68	19,713.38
EAST CENTRAL.					
West Virginia.....	6,662.50	1,025.00	5,637.50	9,327.50	3,690.00
Ohio.....	26,009.70	670.00	25,339.70	36,413.59	11,073.89
Kentucky.....	12,493.86	7,284.98	5,208.88	17,491.41	12,282.53
Michigan.....	15,332.48	7,978.10	7,354.38	21,465.47	14,111.09
Indiana.....	14,736.15	7,044.66	7,691.49	20,630.60	12,939.11
Wisconsin.....	12,793.68	7,115.09	5,678.59	17,827.16	12,208.57
Illinois.....	30,764.50	8,673.52	22,090.98	43,077.30	20,979.32
Minnesota.....	11,325.10	9,284.58	2,040.51	15,855.27	13,814.66
Iowa.....	12,138.49	.....	12,138.49	16,993.88	4,855.39
Missouri.....	17,968.64	2,254.61	15,714.03	25,156.09	9,442.06
WEST CENTRAL.					
North Dakota.....	5,000.00	5,000.00	.....	5,000.00	5,000.00
South Dakota.....	5,000.00	2,898.75	2,101.25	5,000.00	2,898.75
Nebraska.....	6,504.79	2,941.25	3,563.54	9,106.71	5,543.17
Kansas.....	9,225.92	1,720.13	7,505.79	12,916.29	5,410.50
Oklahoma.....	9,041.54	9,041.53	.01	12,658.16	12,658.15
Montana.....	5,000.00	2,876.69	2,123.31	5,000.00	2,876.69
Wyoming.....	5,000.00	2,076.02	2,923.98	5,000.00	2,076.02
Colorado.....	5,000.00	4,000.00	1,000.00	6,103.33	5,103.33
New Mexico.....	5,000.00	709.80	4,290.20	5,000.00	709.80
PACIFIC.					
Idaho.....	5,000.00	903.17	4,096.83	5,000.00	903.17
Utah.....	5,000.00	1,637.15	3,362.85	5,000.00	1,637.15
Arizona.....	5,000.00	558.28	4,441.72	5,000.00	558.28
Nevada.....	5,000.00	264.33	4,735.67	5,000.00	264.33
Washington.....	6,230.77	1,504.75	4,726.02	8,723.07	3,997.05
Oregon.....	5,000.00	2,939.09	2,060.91	5,138.91	3,078.00
California.....	12,972.05	4,378.36	8,593.69	18,160.88	9,567.19

APPENDIX A.

REGULATIONS COVERING THE ADMINISTRATION OF THE VOCATIONAL EDUCATION ACT.

One of the first tasks of the Federal Board was dealing with problems of organization and with the initial tasks of inaugurating its cooperation with the States. At various conferences the purposes of the act has been discussed with particular reference to the general principles upon which it is based and to the methods by which these principles should be brought into practice. As a result of these conferences and much correspondence some preliminary and tentative policies were adopted for the administration of the act. Subsequent to the drawing up of these policies other conferences and additional correspondence has made necessary additional interpretations and formulation of policy.

PART I.

I. STATE BOARDS ARE TRUSTEES¹ FOR THE FEDERAL MONEY.

They not only are agents for the State in carrying on work in vocational education, but they are also trustees of Federal moneys. As such they are responsible² to the Federal Government, through the Federal Board, for the proper expenditure of such funds in conformity with plans submitted by the States and approved by the Federal Board.

When a State accepts the provisions of the Federal act a cooperation³ is established between the National and State Governments under which the two boards act as agents, respectively, for the Nation and the State. It is

¹ " * * * the appropriation for the salaries of teachers, supervisors, or directors of agricultural subjects and of teachers of trade, home economics, and industrial subjects shall be devoted exclusively to the payment of salaries of such teachers, supervisors, or directors having the minimum qualifications set up for the State by the State board, with the approval of the Federal Board for Vocational Education." (Sec. 9.)

² "That whenever any portion of the fund annually allotted to any State has not been expended for the purpose provided for in this act, a sum equal to such portion shall be deducted by the Federal Board from the next succeeding annual allotment for such fund to such State." (Sec. 15.)

"That the Federal Board for Vocational Education may withhold the allotment of moneys to any State whenever it shall be determined that such moneys are not being expended for the purposes and under the conditions of this act * * * ." (Sec. 16.)

"That if any portion of the moneys received by the custodian for vocational education of any State under this act, for any given purpose named in this act, shall, by any action or contingency, be diminished or lost, it shall be replaced by such State, and until so replaced no subsequent appropriation for such education shall be paid to such State * * * ." (Sec. 17.)

³ "That in order to secure the benefits of the appropriations provided for in sections 2, 3, and 4 of this act, any State shall, through the legislative authority thereof, accept the provisions of this act and designate or create a State board, consisting of not less than three members, and having all necessary power to cooperate, as herein provided, with the Federal Board for Vocational Education in the administration of the provisions of the act." (Sec. 5.)

understood that the Federal funds will be sent continuously¹ from year to year for the support of the joint enterprises as long as the State observes the terms of the cooperative agreement. It is further understood that from time to time the terms of this agreement may be changed or modified upon the initiative of either party and upon mutual consent.

II. SPECIFIC DESIGNATION OF CUSTODIAN BY STATE LEGISLATURE.

It will be noted that the vocational education act does not prescribe that a State treasurer shall, after the passage of the act, be appointed as custodian of Smith-Hughes funds. In enacting this provision it is evident that it was the intent of Congress² that in every State the State treasurer must be empowered and obligated to receive and disburse the Federal moneys allotted to the State. A general State statute imposing upon the State treasurer the duty of receiving and accounting for all moneys received by the State, even if passed before the enactment of the Smith-Hughes Act, will therefore, as a general proposition, in the opinion of the Board, comply with the intent of Congress in this respect. To hold otherwise would require that the State legislature merely enact in a different form a provision of law already appearing in the State statutes. In cases, therefore, where the State treasurer is designated by a general statute as custodian of all State funds coming into the custody of the State the Federal Board will not require a special enactment.

III. ACCEPTANCE OF THE ACT BY A GOVERNOR.

In the absence of evidence to the contrary the acceptance by the governor of the provisions of the act should be deemed to be an acceptance of all the funds.³

IV. PRINCIPLES UPON WHICH FEDERAL MONEYS ARE DISTRIBUTED.

The Federal Board believes that the following fundamental principles should govern the appropriations from the National Government to the States for vocational education. The money is designed:

1 "That there is hereby annually appropriated, out of any money in the Treasury not otherwise appropriated, the sums provided in sections 2, 3, and 4 of this act, to be paid to the respective States for the purpose of cooperating with the States in paying the salaries of teachers, supervisors, and directors of agricultural subjects, and teachers of trade, home economics, and industrial subjects, and in the preparation of teachers of agricultural, trade, industrial, and home economics subjects * * * which sums shall be expended as hereinafter provided." (Sec. 1.)

NOTE.—References in footnotes are to sections of the Smith-Hughes Act.

2 "That in order to secure the benefits of the appropriations for the salaries of teachers, supervisors, or directors of agricultural subjects, or for the salaries of teachers of trade, home economics, and industrial subjects, or for the training of teachers as herein provided, any State shall, through the legislative authority thereof, appoint as custodian for said appropriations its State treasurer, who shall receive and provide for the proper custody and disbursements of all money paid to the State from said appropriations." (Sec. 13.)

3 " * * * In any State the legislature of which met in 1917 and failed for any reason to accept the provisions of the vocational education act, as provided in section 5 of said act, if the governor of that State, so far as he is authorized to do so, shall accept the provisions of said act and designate or create a State board of not less than three members to act in cooperation with the Federal Board for Vocational Education, and shall designate the State treasurer as custodian for all moneys allotted to that State under said act, the Federal Board shall, if such legislature took no adverse action on the acceptance of said act in 1917, recognize such State board for the purposes of said act until the legislature of that State meets in regular session in due course and has been in session 60 days." (Public, No. 64, 65th Cong.)

(1) To stimulate¹ the States to undertake a new and needed form of service—that for vocational education—which the National Government believes necessary to the public welfare.

(2) To equalize, in part at least, the inequalities of burden among the States in carrying on this service.

(3) To purchase for the National Government a reasonable degree of participation in carrying on of this work in which the National Government is so deeply concerned.

(4) To establish standards of efficiency in vocational education and to set up minimums below which work in vocational education for which reimbursement from Federal moneys is desired can not be allowed to fall.

Two questions must always be met in determining whether a State is entitled to share in the distribution of Federal funds—

(1) Is the plan² proposed by the State one which the Federal Government is willing to accept?

(2) Will, or can, the State properly carry out³ the plan after the agreement is made?

V. CONDITIONS UPON WHICH FEDERAL MONEY IS GRANTED.

The grant is for payment in part of salaries of teachers, supervisors, and directors of agricultural subjects; for payment in part of salaries of teachers of trade, home economics, or industrial subjects; and for payment toward the maintenance of the training of teachers in all these subjects. The grant is made in accordance with the terms of a definite plan proposed by the State and approved by the Federal Board. No money belongs to any State as of right. A State is entitled to receive Federal aid only when it has conformed to the act and has had its plan approved. No money belongs to any local community or to any institution as of right. Communities and institutions are entitled to money only as they show themselves able and ready to meet the requirements of the State board for vocational education.⁴

¹ "An act to provide for the promotion of vocational education to provide for cooperation with the States in the promotion of such education in agriculture and the trades and industries; to provide for cooperation with the States in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditures." (Title of act.)

² "That in order to secure the benefits of the appropriation for any purpose specified in this act, the State board shall prepare plans showing the kinds of vocational education for which it is proposed that the appropriation shall be used * * * such plans shall be submitted by the State board to the Federal Board for Vocational Education, and if the Federal Board finds the same to be in conformity with the provisions and purposes of this act, the same shall be approved." (Sec. 8.)

³ "That the Federal Board for Vocational Education shall annually ascertain whether the several States are using, or are prepared to use, the money received by them in accordance with the provisions of this act." (Sec. 14.)

⁴ "That in order to secure the benefits of the appropriation for any purpose specified in this act, the State board shall prepare plans showing the kinds of vocational education for which it is proposed that the appropriation shall be used; the kinds of schools and equipment; courses of study; methods of instruction; qualifications of teachers; and, in the case of agricultural subjects, the qualifications of supervisors or directors; plans for the training of teachers; and, in the case of agricultural subjects, plans for the supervision of agricultural education, as provided for in section 10. Such plans shall be submitted by the State board to the Federal Board for Vocational Education, and if the Federal board finds the same to be in conformity with the provisions and purposes of this act the same shall be approved. The State board shall make an annual report to the Federal Board for Vocational Education, on or before September 1 of each year, on the work done in the State and the receipts and expenditures of money under the provisions of this act." (Sec. 8.)

VI. IMPORTANCE OF AN EFFICIENT USE OF FUNDS.

Wherever Federal money is used the State board should make certain that it reimburses only for efficient work.¹ For example, should money be widely distributed in small amounts to a large number of schools, the difficulties of meeting in those schools the standards agreed upon with the Federal Board will be much increased. Hence a sufficient sum should be allotted to a school to enable it to do effective vocational work. The Federal Board believes that State boards should exercise great discretion in selecting the schools which are to share in the funds and in determining the amounts to be allotted to each.

VII. METHOD OF REIMBURSEMENT.²

After a careful study of the plans submitted by the States, the Federal Board will decide in each case whether preliminary approval may be given. If approval is given, the board will certify to the Secretary of the Treasury that the State has complied with the provisions of the Smith-Hughes Act for the current fiscal year. This will insure to States whose plans have thus been approved the first quarterly installment at an early date. As soon as practicable the Federal Board will assure itself further that the several States thus certified are using the Federal funds in accordance with the terms of the act. Should such inquiry disclose that this is not being done, the right is reserved to exercise the power conferred in section 16³ to withhold further grants.

¹ "That the Federal Board for Vocational Education shall annually ascertain whether the several States are using, or are prepared to use, the money received by them in accordance with the provisions of this act." (Sec. 14.)

"That whenever any portion of the fund annually allotted to any State has not been expended for the purpose provided for in this act, a sum equal to such portion shall be deducted by the Federal Board from the next succeeding annual allotment from such fund to such State." (Sec. 15.)

"That the Federal Board for Vocational Education may withhold the allotment of moneys to any State whenever it shall be determined that such moneys are not being expended for the purposes and under the conditions of this act. If any allotment is withheld from any State, the State board of such State may appeal to the Congress of the United States, and if the Congress shall not direct such sum to be paid it shall be covered into the Treasury." (Sec. 16.)

"That if any portion of the moneys received by the custodian for vocational education of any State under this act, for any given purpose named in this act, shall by any action or contingency be diminished or lost, it shall be replaced by such State, and until so replaced no subsequent appropriation for such education shall be paid to such State. No portion of any moneys appropriated under this act for the benefit of the States shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings, or equipment, or for the purchase or rental of lands, or for the support of any religious or privately owned or conducted school or college." (Sec. 17.)

² "On or before the 1st day of January of each year the Federal Board for Vocational Education shall certify to the Secretary of the Treasury each State which has accepted the provisions of this act and complied therewith, certifying the amounts which each State is entitled to receive under the provisions of this act. Upon such certification the Secretary of the Treasury shall pay quarterly to the custodian for vocational education of each State the moneys to which it is entitled under the provisions of this act. The moneys so received by the custodian for vocational education for any State shall be paid out on the requisition of the State board as reimbursement for expenditures already incurred to such schools as are approved by said State board and are entitled to receive such moneys under the provisions of this act." (Sec. 14.)

³ "That the Federal Board for Vocational Education may withhold the allotment of moneys to any State whenever it shall be determined that such moneys are not being expended for the purposes and under the conditions of this act. If any allotment is withheld from any State, the State board of such State may appeal to the Congress of the United States, and if the Congress shall not direct such sum to be paid it shall be covered into the Treasury." (Sec. 16.)

VIII. QUESTIONS TO BE ASKED CONCERNING INSTITUTIONS USING FEDERAL FUNDS.

In the matter of institutions using Federal moneys, the Federal Board is concerned with three things—

- (a) Whether the institution is legally qualified under the act.¹
- (b) Whether supervision and inspection by the State board for vocational education is properly maintained.²
- (c) Whether the courses are carried on in conformity with the plan as agreed upon between the Federal and State boards.³

IX. ABSOLUTE STANDARDS.

The Federal Board must administer the Smith-Hughes Act in exact conformity with its terms. No choice can be made or discretion exercised in dealing with mandatory provisions. For example, the board is charged with seeing that the States provide for at least six months of directed or supervised practice in agriculture,⁴ and that the States provide instruction in the trades and industries for the persons who have not entered upon employment extending over not less than 9 months per year and for not less than 30 hours per week.⁵ Modification of such provisions is impossible.

X. DISCRETIONARY STANDARDS.

Concerning provisions where discretion and interpretation are allowed, the Federal Board reserves the right to judge the arrangement made with each State in the light of local conditions, keeping in mind the fact that the standards in every State must be progressive and that no standard can be permitted to fall below a reasonable minimum of efficiency.

XI. PERSONS FOR WHOM VOCATIONAL EDUCATION IS INTENDED.

The Federal Board desires to emphasize the fact that vocational schools and classes are not fostered under the Smith-Hughes Act for the purpose of giving

¹ "No portion of any moneys appropriated under this act for the benefit of the States shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings or equipment, or for the purchase or rental of lands, or for the support of any religious or privately owned or conducted school or college." (Sec. 17.)

"* * * That such education shall be that which is under public supervision or control * * *." (Sec. 10.) Sections 11 and 12 contain similar provisions.

² "That any State may use the appropriation for agricultural purposes, or any part thereof allotted to it, under the provisions of this act, for the salaries of teachers, supervisors, or directors of agricultural subjects, either for the salaries of teachers of such subjects in schools or classes or for the salaries of supervisors or directors of such subjects under a plan of supervision for the State to be set up by the State board, with the approval of the Federal Board for Vocational Education." (Sec. 10.) See sec. 8.

"* * * the State board of such State shall provide in its plan for such training that the same shall be carried out under the supervision of the State board * * *." (Sec. 12.)

³ "That the Federal Board for Vocational Education shall annually ascertain whether the several States are using, or are prepared to use, the money received by them in accordance with the provisions of this act." (Sec. 14.)

⁴ "* * * that such schools shall provide for directed or supervised practice in agriculture, either on a farm provided for by the school or other farm, for at least six months per year." (Sec. 10.)

⁵ "* * * that such schools or classes giving instruction to persons who have not entered upon employment shall require that at least half of the time of such instruction be given to practical work on a useful or productive basis, such instruction to extend over not less than nine months per year and not less than thirty hours per week * * *." (Sec. 11.)

instruction to the backward, deficient, incorrigible, or otherwise subnormal individuals; but that such schools and classes are to be established and maintained for the clearly avowed purpose of giving thorough vocational instruction to healthy, normal individuals to the end that they may be prepared for profitable and efficient employment.² Such education should command the best efforts of normal boys and girls.

XII. NATURE OF THE COOPERATIVE AGREEMENT BETWEEN THE FEDERAL GOVERNMENT AND A STATE.

The cooperative agreement between the Federal Government and the State is a cooperative agreement with a State and not with all States. It is proposed by a State board for vocational education for a State and is approved by the Federal Board for that State only. It would be impossible to set up a single uniform plan for this widely diversified country with its differing social, economic, and industrial conditions. In its administrative discretion the Federal Board must decide what arrangements it is willing to enter into with each State as a unit. It should be emphasized that the plan for cooperation is in every case offered by the State board and passed upon by the Federal Board.

XIII. THE FEDERAL BOARD WILL DEAL WITH STATE BOARD ONLY.

All official dealings must be between the Federal Board for Vocational Education or its representatives and the State boards for vocational education. Agents of the Federal Board will deal with the State board or is recognized agents only, not with individual schools and institutions. The Federal Board and its agents reserve the right, of course, to inspect from time to time such schools and institutions in order to determine whether or not the State is carrying out properly the plan agreed upon. This decision does not preclude the giving of advice to schools by the Federal Board or its agents at the request of the State board or its agents.

All communications of an official character between the Federal Board and the State boards and their agents must be in writing in order that there may be a proper record of everything agreed to.

XIV. AGREEMENT IS FOR ONE YEAR ONLY.

It is highly desirable that the States propose plans for using the Federal money for one fiscal year only. In this way they will be able from year to year to improve their plans and standards so as to conform to the development of the work and to conditions in the States and communities.

XV. HELPS TO THE STATES FROM STUDIES AND INVESTIGATIONS.

In accordance with the provisions of section 6² of the act, the Federal Board will aid the States through studies made in the research department of the

1 " * * * that the controlling purpose of such education shall be to fit for useful employment; that such education shall be of less than college grade and be designed to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home * * *." (Sec. 10.)

" * * * that the controlling purpose of such education shall be to fit for useful employment; that such education shall be of less than college grade and shall be designed to meet the needs of persons over 14 years of age who are preparing for a trade or industrial pursuit or who have entered upon the work of a trade or industrial pursuit * * *." (Sec. 11.)

² "It shall be the duty of the Federal Board for Vocational Education to make, or cause to have made, studies, investigations, and reports, with particular reference to their use in aiding the States in the establishment of vocational schools and classes and in giving instruction in agriculture, trades and industries, commerce and commercial pursuits, and

board in establishing vocational education and in giving instruction in vocational subjects. It will from time to time issue bulletins, circulars, and announcements dealing with the various phases of studies carried on in its research department and by members of its staff. It will also answer, whenever possible, specific inquiries made by State boards, and will welcome suggestions as to studies and investigations beneficial to the several States.

XVI. SUPERVISION OF THE WORK WITHIN THE STATES.

Trained teachers and trained supervisors are absolutely indispensable in effective vocational education, particularly at the present time. The board therefore urges State boards to provide for supervision and inspection and to make such supervision as extensive as possible. Only in this way can schools get the help they should have at the time they need it most—when the work in the State is beginning. Furthermore, in this way only can the State board be certain that schools are complying with the terms of the plan proposed by the State board and approved by the Federal Board.¹ If the schools in a State do not live up to the terms of that agreement, funds may be withheld.²

XVII. STANDARDS FOR PLANT AND EQUIPMENT.

It will not be possible at the present time to establish in most of the States absolute, or quantitative, standards with regard to minimum plant and equipment and with regard to the minimum amount to be expended for maintenance.³ While the right to establish such standards rests with State boards, the standards themselves must have the approval of the Federal Board. For the present the Federal Board will hold State boards responsible only for determining that the plant and equipment in the case of any school or class are adequate to carry out the purposes for which the school is established, and that the amount expended for maintenance is sufficient to insure reasonable standards of work and to secure teachers prepared properly to do that work.

XVIII. UTILIZATION OF PRIVATELY OWNED EQUIPMENT.

The general limitation contained in the statute in regard to plant and equipment is contained in section 17.⁴ This section declares that no portion of any moneys appropriated under the act for the benefit of States shall be applied directly or indirectly to the purchase, erection, preservation, or repair of any building or buildings, or equipment, or for the purchase or rental of lands, or for the support of any religious or privately owned or conducted school or

home economics. Such studies, investigations, and reports shall include agriculture and agricultural processes and requirements upon agricultural workers; trades, industries, and apprenticeships, trade and industrial requirements upon industrial workers, and classification of industrial processes and pursuits; commerce and commercial pursuits and requirements upon commercial workers, home management, domestic science, and the study of related facts and principles; and problems of administration of vocational schools and of courses of study and instruction in vocational subjects." (Sec. 6.)

1 " * * * The State board shall prepare plans showing * * * in the case of agricultural subjects plans for the supervision of agricultural education." (Sec. 8.)

² See secs. 15, 16, 17, *supra*, p. 116.

3 " * * * That the State or local community, or both, shall provide the necessary plant and equipment determined upon by the State board, with the approval of the Federal Board for Vocational Education, as the minimum requirement for such education in schools and classes in the State * * *." (Sec. 10.) Section 11 contains an identical provision.

4 " * * * No portion of any moneys appropriated under this act for the benefit of the States shall be applied directly or indirectly to the purchase, erection, preservation, or repair of any building or buildings or equipment, or for the purchase or rental of lands, or for the support of any religious or privately owned or conducted school or college." (Sec. 17.)

college. If, therefore, the entire cost incident to utilizing the laboratories, etc., of the institutions referred to is borne by the State and consequently no portion of any Federal funds will be used either directly or indirectly in connection therewith, there will be no objection to State boards using plants and equipment of the character indicated.

PART II.

QUESTIONS INVOLVING POLICY ANSWERED BY THE FEDERAL BOARD FOR VOCATIONAL EDUCATION.

Preliminary to passing on the plans of the States certain questions of principle and policy had to be decided by the Federal Board. Most of these questions were raised at the hearings given to the State boards of control held at Washington, D. C., August 17-29, 1917. These questions, with tentative answers, are here arranged under four heads:

- (1) Questions of a general nature.
- (2) Questions relating to agricultural education.
- (3) Questions relating to industrial education.
- (4) Questions relating to home-economics education.

The Federal Board has reserved the right to modify these principles and policies from time to time in the light of further experience.

SECTION I. QUESTIONS OF A GENERAL NATURE.

I. What is to be the policy of the Federal Board regarding the financial statements of State boards in States operating on a fiscal year other than that beginning July 1 and ending June 30?

Answer. The Federal Board recognizes the difficulties involved. It will be necessary, however, for every feature of the administration of the Smith-Hughes Act, whether between the Federal Board and the State board or the State board and local boards, to be transacted on the basis of the Government's fiscal year, i. e., beginning July 1 and ending June 30.¹ This applies to all such matters as allotments, reimbursements, approval of work, reports, school statistics, and financial statements.

II. What is the nature of the annual report to be furnished by State boards under section 8?

(A) Answer as to financial report showing use of money:

1. The Federal Board will send to the States as soon as possible after October 1 blanks for the financial report to be made by the State boards at the close of the fiscal year in order that the latter may adjust their accounts accordingly.

2. These blanks, when filled, should set forth the facts which the Federal Board must know to discharge its responsibility.

3. There should be a different form for each type of school—agricultural, home economics, industrial, teacher-training—and there should be a summary.

4. These blanks will be designed to uncover as far as possible suspected difficulties, such as the source of money used to match the Federal dollar, the method of disbursement, to whom moneys are paid, and for what purpose.

5. The blanks will provide for the making of sworn statements.

6. They will require the showing of totals and the listing of Federal, State, and local moneys separately.

¹ "The State board shall make an annual report to the Federal Board for Vocational Education, on or before September 1 of each year, on the work done in the State and the receipts and expenditures of money under the provisions of this act." (Sec. 8.)

7. The Federal Board will also supply the States with blanks, which it believes will be helpful in securing from schools and institutions receiving Federal moneys material essential to the report required by the Federal Board; the State boards will, of course, use these blanks or not, as they may desire, but for the sake of uniformity it is hoped that they will avail themselves of them.

(B) Answer as to report giving information concerning work of schools:

1. A separate report will be required, on blanks provided by the Federal Board, concerning each type of school.

2. This report will be in the nature of a summary for the whole State regarding schools which receive Federal moneys.

3. Should the Federal Board approve the use of Federal moneys to pay in part the cost of supervising agricultural schools of the grade of those benefited by the act but not using Federal moneys, the State should make a separate report on the supervision of such schools.

4. The following points, at least, should be covered in the statistical report on the approved schools:

(a) Total number of hours the school was in session.

(b) Proportion of time given to vocational subjects, including vocational work.

(c) Total enrollment.

(d) Total days of attendance.

(e) Per cent of daily attendance (divided *d* by *c*).

5. These points should be covered on a separate blank for each type of school.

6. The blanks should be so drawn that the items and the summary of all items check.

III. *Does the Federal Board have the right to require reports of such a kind as it desires from the States, these reports to be used as a basis for the annual allotment of funds and as a review of the expenditures.*

Answer. As sections 14,¹ 15,² 16,³ and 17⁴ of the act places upon the board the duty of reviewing carefully the disbursements by the State boards of the moneys received by them, these sections impliedly authorize it to require such reports as may be deemed necessary to enable it to discharge this duty. The board will accordingly, from time to time, request such financial reports from the State boards as in its judgment may be proper.

IV. *How does the Federal Board propose to discharge its responsibility of ascertaining annually whether the States are using the national money in accordance with the terms of the act?*⁵

Answer. In these ways—

(a) By a study of the annual report of the State board, with its financial and statistical information.

¹ "That the Federal Board for Vocational Education shall annually ascertain whether the several States are using, or are prepared to use, the money received by them in accordance with the provisions of this act * * *." (Sec. 14.)

² "That whenever any portion of the fund annually allotted to any State has not been expended for the purpose provided for in this act, a sum equal to such portion shall be deducted by the Federal Board from the next succeeding annual allotment from such fund to such State * * *." (Sec. 15.)

³ "That the Federal Board for Vocational Education may withhold the allotment of moneys to any State whenever it shall be determined that such moneys, are not being expended for the purposes and under the conditions of this act * * *." (Sec. 16.)

⁴ "That if any portion of the moneys received by the custodian for vocational education of any State under this act for any given purpose named in this act, shall, by any action or contingency, be diminished or lost, it shall be replaced by such State, and until so replaced no subsequent appropriation for such education shall be paid to such State * * *." (Sec. 17.)

⁵ "That the Federal Board for Vocational Education shall annually ascertain whether the several States are using, or are prepared to use, the money received by them in accordance with the provisions of this act." (Sec. 14.)

(b) By requiring an annual report from the officers or agents of the State board. This report should show, in descriptive as well as tabular form, the activities of the State board and of the schools in the State concerned with this act.

(c) By securing copies of all rules and regulations, as well as of all decisions promulgated by the State board establishing precedents in the use of Federal funds.

(d) By a special report from the State board on the certification of teachers showing—

1. Kinds of certificates.
2. Number issued.
3. Training and experience required for each certificate.
4. Licensing power of certificates.
5. Nature and scope of qualifying examination.

(e) From special reports of its agents concerning work inspected by them in the States.

(f) By examining the published reports and catalogues of schools and classes receiving Federal money.

V. *How does the board propose to ascertain annually, as required by the act,¹ whether the States are prepared properly to use the Federal money from any given fund?*

Answer. In these ways—

(a) Through the information referred to in the answer to Question IV.

(b) By weighing, at the close of any fiscal year, the State plan for the ensuing year in the light of the work done during the year just passed.

(c) By the statistical and financial reports named in the answer to Question IV.

(d) By (1) the character and success of any previous effort to use Federal money in connection with surveys, conferences, or inspections; (2) investigations and reports of Federal agents; (3) bulletins, cooperative activities, and efforts for promotion by State supervisors or other State or local agencies, public or private; and (4) by all other activities and efforts which indicate what has been done in the State and with what success.

VI. *Will the failure of the State to qualify fully at some time during the year deprive it of the use of all the funds for the period elapsing from the 1st day of July that year to the date of qualification?*

Answer. Certification by the board is the determining factor as to when payment to the State shall begin. Therefore, when a State has been certified, it is entitled to its full allotment, payable quarterly, irrespective of the date of its qualification. The law requires that certification shall be made on or before January 1 of the current year.² If certification is made prior to October 1, the first quarterly allotment will be made at the expiration of the first quarter. If certification is made after October 1, the first quarterly payment is immediately payable.

VII. *What is the policy of the board with regard to mixed classes, some of the pupils of which are under 14, but are competent to do work designed for those who are 14?*

¹ Sec. 14, supra, p. 121.

² * * * On or before the 1st day of January of each year the Federal Board for Vocational Education shall certify to the Secretary of the Treasury each State which has accepted the provisions of this act and complied therewith, certifying the amounts which each State is entitled to receive under the provisions of this act. Upon such certification the Secretary of the Treasury shall pay quarterly to the custodian for vocational education of each State the moneys to which it is entitled under the provisions of this act.

Answer. Pupils under 14 can not be admitted, unless it can be clearly shown that they are fully able from the point of view of physical fitness and mental attainments to carry on the work designed for pupils over 14.¹

VIII. *What is the policy of the board concerning payment to a teacher who conducts some classes composed of pupils under 14 and some classes composed of pupils over 14 years of age?*

Answer. No class composed of pupils under 14 years of age is entitled to Federal moneys, and except as stated under question VII no pupil under 14 should be admitted to a class receiving aid under the Smith-Hughes Act.

A further question is that of prorating the salary of a teacher between the time given to vocational and nonvocational subjects. Wherever possible teachers paid in part from Federal moneys should give their entire time to approved vocational classes, and the prorating of the time and salary of a teacher as between vocational and nonvocational subjects should be discouraged. In small rural schools, however, such practice will probably always be necessary.

Prorating as between vocational and nonvocational classes of the vocational school must be safeguarded by some such provisions as the following:

1. Prorating should be based on the whole school day rather than on the number of hours given to each of the two different kinds of work. For example, if in a school with a day of eight periods in length a teacher teaches vocational subjects three periods and nonvocational subjects four periods, the part of the teacher's time given to vocational work would be considered as three-eighths rather than as three-sevenths.

2. No modification of standards shall be made to secure or hold a teacher thus used. The strength of a teacher on the nonvocational side of teaching will not in any way make up for lack of training or experience on the vocational side.

3. All such arrangements should be approved by the State board in advance of, or as soon as possible after, the approval of the State plans and, wherever possible, before the work is inaugurated.

IX. *How far should the Federal Board, in safeguarding the use of Federal moneys, trace the source of the dollar used to match the Federal dollar, in order to avoid illegal matching with money from any other source than the public funds of the State or local community?*²

Answer. The act absolutely requires the State or local community, or both, to meet the use of a Federal dollar with the expenditure of another dollar for the same purpose. Both the Federal Board and the State board must be certain that this requirement is violated neither in letter nor in spirit. This safeguard

The moneys so received by the custodian for vocational education for any State shall be paid out on the requisition of the State board as reimbursement for expenditures already incurred to such schools as are approved by said State board and are entitled to receive such moneys under the provisions of this act * * *." (Sec. 14.)

1 " * * * That such education shall be of less than college grade and designed to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm or the farm home * * *." (Sec. 10.) Section 11 contains a similar provision.

2 "The moneys expended under the provisions of this act in cooperation with the States for the salaries of teachers, supervisors, or directors of agricultural subjects, or for the salaries of teachers of trade, home economics, and industrial subjects shall be conditioned that for each dollar of Federal money expended for such salaries the State or local community, or both, shall expend an equal amount for such salaries; and that appropriations for the training of teachers of vocational subjects, as herein provided, shall be conditioned that such money be expended for maintenance of such training, and that for each dollar of Federal money so expended for maintenance the State or local community, or both, shall expend an equal amount for the maintenance of such training." (Sec. 9.)

was placed in the act to prevent the use of Federal moneys, directly or indirectly, for instruction maintained, directly or indirectly, by private funds. A main purpose of the act is to stimulate the State and local communities to support vocational education in a larger degree by public taxation.

The State board should require all local boards, when making fiscal reports and claiming reimbursement from Federal funds, to make a clear statement regarding the origin of the funds used. The Federal Board will do likewise with each State board.

Public control means control in the hands of an officer or board selected by the people or appointed by another officer or board so selected.¹

X. Does the Smith-Hughes Act require that when one-half the salary of a supervisor or teacher, for example, is paid out of Federal moneys it must be matched by a similar amount paid toward the salary of the same individual teacher; or may the Federal money go to pay one-half the salaries of a group of teachers engaged in approved and standardized work, thus losing sight of the individual?

Answer. The statute requires² that the State or local community shall in every case match the Federal money by an equal amount. Nothing in the act requires that an individual teacher shall be paid partly by Federal and partly by State money. Since the Federal money is to be used to reimburse schools for salaries already paid, the individual teacher will receive only State moneys, while the Federal moneys will be paid to the schools for reimbursement of so much of the moneys paid to the teachers as the act provides may be paid from Federal funds.

XI. May an institution use Federal moneys both for teacher-training and for the salaries of teachers of vocational subjects in the same line? For example, may an institution train teachers of home economics and, at the same time, operate a secondary school or class in home economics?

Answer. Yes; subject to what follows:

(a) All instruction for teacher-training classes should be divorced from classes of secondary grade using Federal funds, and a separate accounting should be required for each. The classes, courses of study, and organization must be distinct.

(b) No school can claim money for the support of any class from both the teacher-training fund and the corresponding fund for the salaries of teachers.

(c) Where the dominant purpose of such a class is in doubt the authorities of the school must define it as one thing or the other, and reimbursement must be made accordingly.

(d) Where an institution asks Federal aid for a class the declared aim of which is to fit for useful employment³ for a productive vocation, but the real

1 " * * * That in order to receive the benefits of such appropriations for the salaries of teachers, supervisors, or directors of agricultural subjects the State board of any State shall provide in its plan for agricultural education that such education shall be that which is under public supervision or control * * *." (Sec. 10.) Sections 11 and 12 contain similar provisions.

2 " * * * The moneys expended under the provisions of this act, in cooperation with the States, for the salaries of teachers, supervisors, or directors of agricultural subjects, or for the salaries of teachers of trade, home economics, and industrial subjects, shall be conditioned that for each dollar of Federal money expended for such salaries the State or local community, or both, shall expend an equal amount for such salaries; and that appropriations for the training of teachers of vocational subjects, as herein provided, shall be conditioned that such money be expended for maintenance of such training, and that for each dollar of Federal money so expended for maintenance the State or local community, or both, shall expend an equal amount for the maintenance of such training." (Sec. 9.)

³ See secs. 10 and 11, note, p. 123, supra.

purpose of which, for example, is to prepare teachers for rural schools, Federal moneys, under the Smith-Hughes Act, should not be given.

XII. *What is meant by the expression "not less than 20 per cent shall be expended for any one of the following purposes," as contained in section 12 of the statute?*¹

Answer. The appropriation for the preparation of teachers is to be used for the training of teachers in the subjects of agriculture, trades and industries, and home economics. In order that some of the appropriation may be expended for the fitting of teachers in all three subjects, the restriction is made that not more than 60 per cent nor less than 20 per cent shall be applied to the training of any one of the three classes of teachers. It is believed by the Board that this means that an agricultural State, for example, may spend 60 per cent of the money for the training of teachers of agriculture, 20 per cent for trade and industry teachers, and 20 per cent for home economics teachers.

XIII. *Where one and the same person supervises the work of the State and conducts teacher-training work, how may the Board satisfy itself that money expended for travel was used in connection with teacher-training rather than with supervision?*

Answer. Where money is being used for such dual task traveling expense ought to be paid only when it can be clearly shown that each trip was exclusively connected with teacher-training work. This rule, however, should not be pressed as to prevent the supervision of work on a trip primarily undertaken for teacher-training work when no extra expense is involved.

XIV. *How may the control of the State board over a supervisor loaned by an institution be safeguarded? Does the Federal Board favor such an arrangement?*

Answer. While the Board is strongly of the opinion that State supervisors should not only be controlled, but paid, directly by the State board, it recognizes that in some States funds are not yet available for use in this way. In such cases the State board must avail itself of the generosity of State institutions, boards, or departments.

As a permanent arrangement it would be bad policy to use employees of other institutions, boards, or departments, as supervisors, and if resorted to temporarily should be discontinued as soon as the State board has the funds necessary for the supervision of Federal, State, and local moneys for vocational training. Such funds should be secured at the next session of the State legislature.

Whether or not Federal moneys are used for the payment in part of such supervision, the State board should guard jealously its autonomy as a trustee for Federal moneys. It can not even temporarily surrender or delegate the control and supervision of the use of this money to any other agency.

When such an arrangement was made for the school year 1917-18 the Federal Board advised that—

(a) A formal transfer of the supervisor or director be made in writing from the institution, board, or department employing him to the State board. This should be done whether all or only a part of his time is so transferred.

(b) While engaged in work for the State board he should be under the sole direction of the board or its executive officer and should report only to them.

¹ " * * * That not more than 60 per cent nor less than 20 per cent of the money appropriated under the act for the training of teachers of vocational subjects to any State for any year shall be expended for any one of the following purposes: For the preparation of teachers, supervisors, or directors of agricultural subjects, or the preparation of teachers of trade and industrial subjects, or the preparation of teachers of home economics subjects." (Sec. 12.)

(c) Wherever possible, his traveling expenses should be paid by the State board. If impossible, the institution, board, or department employing him should grant him a certain amount for travel, so that his movements may be directed entirely by the State board.

(d) Where his salary is paid in part by the State board and in part by an institution, board, or department there should be a definitely agreed upon division of duties and of expenses.

XV. *May the State boards delegate into the hands of any other agency the expenditure or supervision of Federal money under the Smith-Hughes Act?*

Answer. It is believed by the board that the well-settled principle of law with regard to the delegation of duties applies to State boards. This rule, briefly stated, is that in cases in which the proper execution of the office requires on the part of a board the exercise of judgment and discretion the presumption is that the board was chosen because it was deemed fit and competent to exercise that judgment and discretion, and unless power to delegate its authority has been given it can not delegate its duties to another. The Smith-Hughes Act provides that State boards must be vested with all necessary power to cooperate with the Federal Board for Vocational Education in the administration of the provisions of the Smith-Hughes Act.¹ They must accordingly prepare and submit the plans required by the statute;² make an annual report on the work done in the States represented by them;³ approve schools in which appropriations are to be expended;⁴ supervise the training of teachers,⁵ etc. As the proper performance of all these duties involves the exercise of judgment and discretion, it is believed by the Federal Board that they must be performed by State boards personally and can not be delegated to others.

XVI. *Has the board a definite policy regarding the expenditure of Federal moneys in few or in many schools in a given State?*

Answer. This is a relative question depending upon such conditions in the States as (a) the standards proposed by the State board, (b) the number of schools already doing high-grade work, (c) the number of schools approaching

¹ "That in order to secure the benefits of the appropriations provided for in sections 2, 3, and 4 of this act, any State shall, through the legislative authority thereof, accept the provisions of this act, and designate or create a State board, consisting of not less than three members, and having all necessary power to cooperate, as herein provided, with the Federal Board for Vocational Education in the administration of the provisions of this act." (Sec. 5.)

² "That in order to secure the benefits of the appropriation for any purpose specified in this act, the State board shall prepare plans, showing the kinds of vocational education for which it is proposed that the appropriation shall be used; the kinds of schools and equipment; courses of study; methods of instruction; qualifications of teachers; and, in the case of agricultural subjects, the qualifications of supervisors or directors; plans for the training of teachers; and, in the case of agricultural subjects, plans for the supervision of agricultural education as provided for in section 10 * * * ." (Sec. 8.)

³ " * * * The State board shall make an annual report to the Federal Board for Vocational Education, on or before September 1 of each year, on the work done in the State and the receipts and expenditures of money under the provisions of this act." (Sec. 8.)

⁴ " * * * The money so received by the custodian for vocational education for any State shall be paid out on the requisition of the State board as reimbursement for expenditures already incurred to such schools as are approved by said State board and are entitled to receive such moneys under the provisions of this act." (Sec. 14.)

⁵ "That in order for any State to receive the benefits of the appropriation in this act for the training of teachers, supervisors, or directors of agricultural subjects, or of teachers of trade, industrial, or home economics subjects, the State board of such State shall provide in its plan for such training that the same shall be carried out under the supervision of the State board." (Sec. 12.)

such work, (d) the amount of money available from the Federal and State funds, etc.

In general, the Federal Board believes that in most of the States the best results will be secured by the use of the Federal money in few rather than in many schools during the present fiscal year. The initial amount is comparatively small, and benefits can readily be extended as the Federal funds increase. At present most of the States need types of approved schools and classes rather than widely scattered small amounts of money. If only a few schools are aided, better standards can be exacted. The experience of States already giving State aid to approved vocational schools would indicate that such schools conform more readily to sound and reasonable requirements if the aid granted be substantial. If the money be dissipated among many schools the aid for each becomes so small that it fails to improve the work.

XVII. Is the Federal Board empowered to reject a State plan because the Federal money, following a State custom as to requirements for State moneys, is given broadcast so that every community gets a little?

Answer. The Federal Board is empowered to reject any plan not in conformity with the provisions and purposes of the act.¹ If the plans submitted, therefore, show that it is intended to distribute the funds so widely that the promotion of vocational education will not result, such plans will be disapproved.

XVIII. What is the attitude of the board toward the use of Federal funds for work already established in the State rather than for new undertakings?

Answer. In the opinion of the board, it is not the intent of the act that Federal funds be used in place of State funds already provided to aid the work of local communities. On the contrary, the intent is to aid a State, at its present point of development in vocational education, in promoting and establishing new work.

No use of the Federal moneys should be made which will result in a diminution of the amount of funds already devoted in a State to vocational education. Rather should the allotment of Federal funds stimulate the State and local communities to provide more generously for the same purposes out of public funds.

XIX. Is the board prepared to accept different standards for colored and for white schools?

Answer. Yes; in States where separate schools and classes are maintained for colored youth. The reasons for this are similar to those which have led the board to accept, at the present time, differing standards for different States because of wide variations in social, industrial, and economic conditions.

XX. Will the board approve of the use of Federal moneys for instruction in schools and classes designed for the benefit of delinquent, dependent, incorrigible, defective, or otherwise subnormal youths or adults?

Answer. No; for the reason that the dominant purpose of the Smith-Hughes Act is plainly to promote the national welfare by aiding normal citizens to increase their own and the general well-being through various forms of vocational education.²

¹ " * * * That in order to secure the benefits of the appropriation for any purpose specified in this act, the State board shall prepare plans showing the kinds of vocational education for which it is proposed that the appropriation shall be used; the kinds of schools and equipment; courses of study; methods of instruction; qualifications of teachers; and, in the case of agricultural subjects, the qualifications of supervisors or directors; plans for the training of teachers; and, in the case of agricultural subjects, plans for the supervision of agricultural education, as provided for in section 10. Such plans shall be submitted by the State board to the Federal Board for Vocational Education, and if the Federal Board finds the same to be in conformity with the provisions and purposes of this act, the same shall be approved. * * *." (Sec. 8.)

² See secs. 10 and 11, *supra*, p. 123.

XXI. *What is the policy of the board toward the provision in section 9 for "well-rounded courses of study?"*¹

Answer. The act requires a specified time to be devoted in day schools to practical work. In addition, time sufficient for proper teaching must be given to instruction in related or technical subjects which are also vocational. The remaining time should be given to nonvocational subjects "necessary to build well-rounded courses of instruction."

While not making at this time a definite and final ruling, the board points out that the experience in vocational education in agriculture and in trades and industries gained by this country during the last 10 years has established the following as the prevailing practice:

(a) In day industrial or trade schools at least one-half the time is given to practical work on a useful or productive basis.

(b) From 30 to 35 per cent of the time in such schools is given to related studies, like mathematics, drawing, or science.

(c) The remainder of the time (15 to 20 per cent) is given such subjects as English, civics, hygiene, and history.

(d) In day agricultural schools one-half the time is given to such subjects as agronomy, soil physics, animal husbandry, etc., including required, supervised practice in agriculture.

(e) The remaining half of the time in such schools is given to nonvocational subjects.

Because of the wording of section 11, a section intended to establish certain standards for industrial and trade schools, it has been found somewhat difficult for the Federal Board to apply these standards to schools and classes in home economics.

In order to give as much flexibility therein as possible, the following rulings are made:

1. In the case of home economics when the requirement is that at least half the time of the instruction be given to practical work on a useful or productive basis, the term practical work shall be interpreted to include the practical work and related subjects in home economics, such as garment making, foods and cookery, sanitation and home nursing, house planning, and house furnishing.

The remaining half of the time may be given to related home economics subjects—applied art and applied science—and to nonvocational subjects.

For a fuller statement, and for modifications for cities of under 25,000 population,² see Section IV, Question I.

XXII. *Section 9³ says that the cost of instruction in agriculture, etc., necessary to build a well-rounded course in training shall be borne by the State*

¹ " * * * The cost of instruction supplementary to the instruction in agricultural and in trade, home economics, and industrial subjects provided for in this act, necessary to build a well-rounded course of training, shall be borne by the State and local communities, and no part of the cost thereof shall be borne out of the appropriations herein made." (Sec. 9.)

² "That for cities and towns of less than 25,000 population, according to the last preceding United States census, the State board, with the approval of the Federal Board for Vocational Education, may modify the conditions as to the length of course and hours of instruction per week for schools and classes giving instruction to those who have not entered upon employment in order to meet the particular needs of such cities and towns." (Sec. 11.)

³ "The cost of instruction supplementary to the instruction in agricultural and in trade, home economics, and in industrial subjects provided for in this act, necessary to build a well-rounded course of training, shall be borne by the State and local communities, and no part of the cost thereof shall be borne out of the appropriations herein made." (Sec. 9.)

and local communities, and that no part of the cost thereof shall be borne out of the appropriations under the Smith-Hughes Act. Does the wording of this section mean that the Federal Board has no right to standardize any well-rounded course? Is it to be the judge of what constitutes such courses?

Answer. The language employed in the provision in regard to well-rounded courses of training contains no intimation as to whether it was intended that such courses should be required and standardized by the Federal Board. The incorporation in the act of this provision, however, is strong evidence that it was the intent of Congress that such courses could properly be required in some cases. The main purpose of the clause is obviously to provide that the cost of supplementary instruction shall not be borne out of the appropriations made by the act. But if it was not intended that such instruction might be properly included, in certain cases, in the courses of study to be given in the schools and classes aided by Federal funds, the enactment in regard to the cost of such instruction would be of no force and effect. Congress, by providing in section 8 that the plans submitted by the State board must be passed by the Federal Board, clearly vested in the latter authority to refuse to approve such plans as did not, in its judgment, contain courses of study necessary to accomplish the purposes of the act. It is the duty of the board, therefore, to determine, upon the submission to it of plans, the questions whether provision for supplementary instruction should be included therein. Thus, in proper cases the board reserves the right both to require and standardize such courses.

XXIII. Is selection and placement of teachers a legitimate part of the expenditure for maintenance of teacher training?

Answer. Yes; but its cost must not be in unreasonable proportions. In the training of teachers of shopwork, where it is difficult to get men of experience to prepare for teaching, the cost of selection is a legitimate item of expense. Moreover, this work of selection is largely a day activity, while that of training shopwork teachers is largely an evening class actively carried on in industrial centers after working hours.

XXIV. May the State legislature require a State board to designate a particular institution as the place for teacher training, in so far as Federal funds are concerned in the maintenance of that teacher training?

Answer. The State legislature can control the action of the State board and require it to designate any institution it may deem proper. The Federal Board is directed to approve plans only in the event that such plans conform with the provisions and purposes of the act; hence it may refuse to approve plans¹ unless it is satisfied that the kinds of schools for which it is proposed that the appropriations of the act are to be used are such as were intended to be aided by the Federal Government.

XXV. Assuming that the institution with the highest standards in the State has been approved by the State board for teacher training and that the State is able to supply all the qualified teachers needed, would the Federal Board approve of the use in addition of Federal moneys in an institution or institutions of lower grade, in the same State, for the training of teachers of the same vocational subjects as those for which teachers are trained in the institution of higher standards?

Answer. No; because if enough teachers of superior qualifications can be secured, no others should be trained or employed. In determining whether the approved institution is able to supply all the teachers needed three factors must be considered:

¹ See quotation from sec. 8, *supra*, p. 127.

1. The amount of money to be used in the State for the payment of salaries of teachers in the vocational subjects concerned.

2. The number of schools actually in operation which will probably qualify to receive Federal moneys toward the salaries of vocational teachers.

3. The facilities for training the number of teachers required and the probable registration of prospective teachers for this work.

XXVI. *What is the policy of the Board toward the question of the certification of teachers in the State?*¹

Answer. The practices of the several States in certifying teachers necessarily affects the standards and policies of the State in certifying teachers of vocational subjects.

The State board may use Federal moneys for teachers of vocational subjects if they meet the qualifications agreed upon by the two boards even though such teachers may not have been certificated to teach under the State laws. In most States, however, teachers must hold certificates before they can legally be paid for their services by the State or community. The Federal Board views certification from the standpoint only of a device which may assist or may handicap the State board in securing and holding competent instructors.

The situation as to certification varies widely among the States. In States where the legislature has prescribed in detail the subjects in which teachers must be examined for every kind and grade of license and has left practically no power in the hands of the State educational authorities to issue special licenses for teachers giving instruction in vocational education, the Federal Board will make such adjustments as it deems necessary. Should it be of the opinion that the system of certification used interferes with the proper selection and employment of teachers receiving Federal moneys, it will give notice that at the next session of the State legislature remedial legislation should be introduced.

Where the chief school officer of the State of a certifying board is empowered to issue special certificates, this authority should be used so as to establish flexibility in employing and certifying vocational teachers.

Since the State laws governing the examining and licensing of teachers were in most instances framed before the rise of vocational education, few of them are adapted properly to meet the task of selecting and testing teachers for this new field. New standards and requirements are demanded. Experience along practical lines must be measured. Mechanical skill and the ability to use technical knowledge in a practical way must be tested. For many positions special skill and technical knowledge rather than general ability must be sought. In many cases practical tests should be given in place of, or supplementary to, written examinations. Evidence of successful experience in a vocation, as well as in teaching, should have large weight. The help of the layman, particularly of the practical man, should be used in determining the standards and tests by which the worth of the applicant for the teaching of any given occupation or trade is to be determined. This is equally true whether it be a question of trades and industries or agriculture or of home economics.

Whether the present State provisions for certification admit of no flexibility or whether the State superintendent has power to deal temporarily with the difficulty by issuing special licenses, the Federal Board is of the opinion that

¹ "That in order to secure the benefits of the appropriation for any purpose specified in this act, the State board shall prepare plans, showing * * * qualifications of teachers * * *." (Sec. 8.)

"The teachers of any trade or industrial subject in any State shall have at least the minimum qualifications for teachers of such subject determined upon for such State by the State board, with the approval of the Federal Board for Vocational Education * * *." (Sec. 10.) Section 11 contains a similar provision.

the next session of the legislature in every State should commit the whole matter of examining and certificating teachers of vocational subjects into the hands of the State board for vocational education, giving it power to establish from time to time such standards, tests, rules, and regulations governing certificates as that board may deem advisable.

XXVII. *Section 5 states that any State may accept the benefits of any one or more of the respective funds.¹ Does this acceptance have to be made by the legislature or could it be made by the State board designated or created by the legislature? In a number of States the legislature accepted² the provisions of the act "in sweeping phrase," but failed to designate whether or not it desired the benefits of all the funds or of any one or more of the funds specifically named. Does this omission prevent such States from qualifying legally under the act?*

Answer. The Board believes that the States should accept one or more of the several funds created by the act, but not necessarily directly through the legislature. State boards may be authorized to act for the State in this respect, and their acceptance in pursuance of such authority would be legally binding in all cases. When States have accepted "in sweeping phrase" such acceptance will be considered as an intent to accept the benefit of all the funds unless the contrary is shown.

XXVIII. *For the maintenance of what classes may Federal moneys for teacher-training be used?*

Answer. (a) Regardless of whether or not Federal funds are to be used for all the classes or subjects in the course of study it is necessary for a State board to submit the full course for approval by the Federal Board under section 8¹ of the act before Federal money may be used for any of the classes.

(b) The fact that the full course of study has been approved does not mean that Federal money may be used for the maintenance of instruction in all subjects of the approved course.

(c) The Board realizes that the students who are being prepared as teachers of vocational¹ subjects will to a greater or less extent be taught in the usual and regular classes of the institution giving technical or pedagogical training to mixed groups of students pursuing the work with different aims. In general, the purpose of the teacher-training fund under the Smith-Hughes Act is not to cooperate with the States in the support of customary courses of instruction, but to promote the establishment of courses and subjects having as a distinct aim the preparation of teachers of vocational subjects for service in schools and

¹ * * * Any State may accept the benefits of any one or more of the respective funds herein appropriated, and it may defer the acceptance of the benefits of any one or more of such funds, and shall be required to meet only the conditions relative to the fund or funds the benefits of which it has accepted * * *." (Sec. 5.)

² That in order to secure the benefits of the appropriations provided for in sections 2, 3, and 4 of this act, any State shall, through the legislative authority thereof, accept the provisions of this act and designate or create a State board, consisting of not less than three members, and having all necessary power to cooperate, as herein provided, with the Federal Board for Vocational Education in the administration of the provisions of this act * * *." (Sec. 5.)

³ That in order to secure the benefits of the appropriation for any purpose specified in this act, the State board shall prepare plans showing the kinds of vocational education for which it is proposed that the appropriation shall be used; the kinds of schools and equipment; courses of study; methods of instruction; qualifications of teachers; and, in the case of agricultural subjects, the qualifications of supervisors or directors; plans for the training of teachers; and, in the case of agricultural subjects, plans for the supervision of agricultural education, as provided for in section 10. Such plans shall be submitted by the State board to the Federal Board for Vocational Education, and if the Federal Board finds the same to be in conformity with the provisions and purposes of this act, the same shall be approved * * *." (Sec. 8.)

classes of the type organized under the Smith-Hughes Act. For these reasons Federal moneys for teacher-training may not be used for the maintenance of mixed classes, but only for separate classes.

(d) Federal funds for the training of teachers may be used only on the following conditions:

- (1) That the classes for which these funds are used are composed entirely of those students who are preparing to teach in vocational schools. Such students must be pursuing the course of study approved by the State and Federal boards.
- (2) That no separate classes for which Federal funds are used are to parallel other classes being conducted in the institution. When such separate classes are formed it must be clearly shown that they are a necessary addition to classes already in operation for other students. Instruction in these separate classes must be sufficiently differentiated from the regular classes to justify their establishment and maintenance.

XXIX. *May any money under this act be used by the States for commercial education?*

Answer. The moneys appropriated are to be paid to the States¹ "for the purpose of cooperating with them in paying the salaries of teachers, supervisors, and directors of agricultural subjects, and teachers of trade, home-economics, and industrial subjects, and in the preparation of teachers of agricultural, trade, industrial, and home-economics subjects." This purpose does not include the teaching of commercial subjects.

SECTION II. QUESTIONS RELATING TO AGRICULTURAL EDUCATION.

I. *May a land-grant college claim money from the Morrill fund, from the Nelson fund, and from the agricultural fund under the Smith-Hughes Act to support the same class or classes in agriculture?*

Answer. No; for these reasons—

- (a) A class must be either of college grade or of less than college grade.
- (b) A State board must require institutions to define a class as being one or the other.
- (c) If the class is defined as of college grade it can not use money under the Smith-Hughes Act.²

(d) The fact that a class is maintained at least in part by Federal moneys granted to institutions as of college grade defines it as of college grade.

(e) The only way in which a land-grant college can use Federal moneys under the Smith-Hughes Act for the salaries of teachers of agriculture is by making a separate organization of vocational classes of less than college grade.

II. *May a person divide his time between supervision of agricultural subjects and the training of teachers of agriculture? If so, out of what Federal fund or funds may part of his salary be paid?*

Answer. Yes; but a definite division of his time between supervision and teacher training should be made at the outset of the fiscal year and adhered to. This is necessary whether he receives all his salary through the State board

¹ "That there is hereby annually appropriated, out of any money in the Treasury not otherwise appropriated, the sums provided in sections 2, 3, and 4 of this act, to be paid to the respective States for the purpose of cooperating with the States in paying the salaries of teachers of trade, home-economics, and industrial subjects, and in the preparation of teachers of agricultural, trade, industrial, and home-economics subjects * * *." (Sec. 1.)

² " * * * That such education shall be of less than college grade * * *." (Sec. 10.)

or through a State institution or a part from each source. The accounts of the State should show both the division of his time and the source or sources of his salary.

III. *If a director of vocational education has under him three assistants, one each for agriculture industry, and home economics, will the board approve the payment of one-half or one-third of the salary of this director, as well as one-half of the salary of the supervisor of agricultural subjects, provided that the director meets the standards set?*

Answer. Yes; for the year 1917-18, in order to assist the States; but the approval of such an arrangement for the current year must not be regarded as a precedent. The board believes it to be the intent of the Smith-Hughes Act that States should provide directors.

IV. *May the agricultural fund be spent for the salaries of supervisors or directors of agricultural subjects employed by the State rather than by local schools?*

Answer. Yes; section 10 provides¹ that any State may use the appropriation for agricultural purposes, either for the salaries of teachers in schools, or for salaries of supervisors or directors, under a plan of supervision for the State prepared by the State board and approved by the Federal Board.

V. *If part of the time of a person supervising agriculture is given to the supervision of industrial or home economics education, what principles are to govern the payment of Federal moneys for such supervision?*

Answer. (a) Under the law a supervisor must meet qualification standards set by the State board and approved by the Federal Board for supervisors of agriculture,² otherwise Federal moneys may not be used for his salary.

(b) The amount of time such supervisor gives to agriculture is to be figured in proportion to the time given to other subjects as the amount spent for the salaries of teachers of agriculture whom he supervises is to the amount spent for salaries of teachers of other subjects. These figures are to be obtained from the sworn report of the State board for the fiscal year.³

(c) Where he also supervises teacher training in agriculture, industry, and home economics, the same method of prorating is to be used.

VI. *What is to be the relation between the State supervisor of agriculture and the State leader of boys' and girls' club work? May one person serve in both positions? This applies also to county supervisors and county leaders of boys' and girls' club work.*

Answer. He may not so serve except (and this only for the current year) on the same footing as that of a person serving as supervisor of vocational agriculture who, when not so employed, performs such other duties as, for example,

¹ "That any State may use the appropriation for agricultural purposes, or any part thereof allotted to it, under the provisions of this act, for the salaries of teachers, supervisors, or directors of agricultural subjects, either for the salaries of teachers of such subjects in schools or classes or for the salaries of supervisors or directors of such subjects under a plan of supervision for the State to be set up by the State board, with the approval of the Federal Board for Vocational Education." (Sec. 10.)

² " * * * The State boards shall prepare plans showing * * * in the case of agricultural subjects, the qualifications of supervisors or directors * * *. Such plans shall be submitted by the State board to the Federal Board for Vocational Education and if the Federal Board finds the same to be in conformity with the provisions and purposes of this act, the same shall be approved." (Sec. 8.)

³ "That any State may use the appropriation for agricultural purposes, or any part thereof allotted to it, under the provisions of this act, for the salaries of teachers, supervisors, or directors of agricultural subjects, either for the salaries of teachers of such subjects in schools or classes or for the salaries of supervisors or directors of such subjects under a plan of supervision for the State to be set up by the State board, with the approval of the Federal Board for Vocational Education * * *." (Sec. 10.)

that of teaching a nonvocational subject. His status as a teacher of vocational and of nonvocational subjects should be sharply defined both as to the amount of time and as to the source of his salary. Federal moneys can be used to pay for only that part of his time given to supervision of instruction in vocational agriculture.

VII. *Will the board allow the use of Federal moneys for short courses in agriculture?*

Answer. This involves questions as to the required provision for six months of supervised, practical work and as to how far that provision applies to men operating their own farms.¹ The length of the school course in agriculture is independent of the required six months of supervised practice on a farm, since that practice must be regarded as only a part of the regular instruction, the other part being carried on in class. Pupils may be in attendance on school classes for any period of time necessary to complete all other than the practical work. This time may be long or short, according to the State plan adopted. It might be, at least in theory, one week, or one month, six months, nine months, or two or more regular school years. The State board, however, should set up a system of reports clearly showing whether or not the practical work was properly supervised.

The practical work may be either regular farm occupations or specific projects. Regular farm work for this purpose implies an interpretation of the regular farm duties carried on by the pupil in accordance with outlines or instructions prepared by the supervisor, corresponding reports by the pupil to the supervisor, and actual visitation by the supervisor to inspect the pupil's work and to confer with him. Along with this practical experience must go, of course, the class work supplementary to it.

VIII. *The agricultural fund is allotted to the States on the basis of rural population.² Nothing is said as to where the States shall spend the money. May it be spent for agricultural education in communities of more than 2,500 people? The industrial fund, including that for home economics, is allotted to the States on the basis of urban population.³ Would this prevent the use of that money in communities of less than 2,500 people?*

Answer. The Census Bureau, in compiling the population of the United States, has classified as urban population that residing in cities and places of 2,500 inhabitants or more, and as rural that residing in the remainder of the country. Although the allotment of money to the States is based on this classification, there is nothing in the statutes that requires the funds appropriated for agricultural schools to be spent in communities of less than 2,500 or that requires the funds appropriated for industrial schools to be used by communities over 2,500. The distribution of the funds is a matter for the State board to determine and it may accordingly place them wherever it believes the money will do the most good.⁴

1 " * * * That such schools shall provide for directed or supervised practice in agriculture, either on a farm provided for by the school or other farm, for at least six months per year. * * * " (Sec. 10.)

2 " Said sums shall be allotted to the States in the proportion which their rural population bears to the total rural population in the United States, not including outlying possessions, according to the last preceding United States census * * * " (Sec. 2.)

3 " Said sums shall be allotted to the States in the proportion which their urban population bears to the total urban population in the United States, not including outlying possessions, according to the last preceding United States census * * * " (Sec. 2.)

4 " The moneys so received by the custodian for vocational education for any State shall be paid out on the requisition of the State board as reimbursement for expenditures already incurred to such schools as are approved by said State board and are entitled to receive such moneys under the provisions of this act. " (Sec. 14.)

IX. *In matching Federal moneys by funds raised by the State or local communities¹ may the State set off against Federal funds used in the payment of the supervision of agricultural education moneys paid by the State or local communities as salaries of teachers?*

Answer. The method in which a State may use its allotment for supervision of agricultural education will be controlled entirely by the provisions of the plan approved by the board.² In such plans the board will consider the teaching of agricultural subjects and supervision of agricultural education as separate and distinct lines of work, and funds expended by the State or local communities for salaries of teachers can not therefore be used to match Federal funds paid for supervision. In every instance States will be required to show that the Federal funds used for each purpose are matched by at least an equal sum furnished by the State or local communities for the same purpose.

X. *How far may successful experience in teaching vocational agriculture be accepted in lieu of the training in agriculture to be required as a qualification by the State board?*²

Answer. The Federal Board recognizes that, in some States at least, the new standards for qualifications of teachers will be higher than those now required for certification, and that schools have already made contracts with teachers for the school year 1917-18. Therefore if the qualifications of teachers already employed approach the new standards, and if those teachers can show successful experience in giving instruction in agriculture of the character and grade for which the State board proposes to use Federal moneys, that experience may be accepted as a substitute. The State board, however, should require all such teachers to secure within a reasonable time the training necessary to meet the new standards.

XI. *May Federal moneys under the Nelson Act and Federal moneys under the Smith-Hughes Act be used for the maintenance of the same teacher-training classes in agriculture?*

Answer. Yes; but no Federal moneys expended under the Nelson Act can be used to match Federal moneys under the Smith-Hughes Act. For every dollar of national funds expended by the State under the Smith-Hughes Act the State or local community, or both, must expend an equal amount for the maintenance of the same class or classes. Such fund must be used in accordance with the laws and regulations governing that fund.

XII. *What is the policy of the Federal Board with regard to the land-grant colleges and the fund for training teachers available under the Nelson Act?*

Answer. (a) The Federal Board is charged with administering a fund to be used for training teachers primarily for service in schools meeting certain definite standards under the act.

1 " * * * The moneys expended under the provisions of this act in cooperation with the States, for the salaries of teachers, supervisors, or directors of agricultural subjects, or for the salaries of teachers of trade, home economics, and industrial subjects, shall be conditioned that for each dollar of Federal money expended for such salaries the State or local community, or both, shall expend an equal amount for such salaries; and that appropriations for the training of teachers of vocational subjects, as herein provided, shall be conditioned that such money be expended for maintenance of such training, and that for each dollar of Federal money so expended for maintenance the State or local community, or both, shall expend an equal amount for the maintenance of such training * * *." (Sec. 9.)

2 "That any State may use the appropriation for agricultural purposes, or any part thereof allotted to it, under the provisions of this act, for the salaries of teachers, supervisors, or directors of agricultural subjects, either for the salaries of teachers of such subjects in schools or classes or for the salaries of supervisors or directors of such subjects, under a plan of supervision for the State to be set up by the State board with the approval of the Federal Board for Vocational Education * * *." (Sec. 10.)

³ See note under Section I, Question XVIII.

(b) At the same time, however, the board fully recognizes the need for preparation in agriculture on the part of teachers who are to teach in the rural schools or in other schools not meeting the requirements of the Smith-Hughes Act.

(c) The preparation of such teachers, so far as the Federal Government is concerned, has already been provided for under the Nelson amendment of the Morrill Act, which, after making an annual appropriation for the more complete endowment and maintenance of agricultural colleges now established, or which may hereafter be established, in accordance with the act of Congress approved July 2, 1862, and the act of Congress approved August 30, 1890, by a proviso contained in section 2 declares "that said colleges may use a portion of this money for providing courses for the special preparation of instructors for teaching the elements of agriculture and mechanic arts."

XIII. *May a land-grant college operate a teacher-training school in agriculture and a secondary school in agriculture in the same buildings and use Federal moneys for both?*

Answer. The State board should require absolute separation of all instruction for teacher-training classes from that of secondary grade fitting for the pursuit of agriculture, if either, or both, are to receive Federal moneys under the Smith-Hughes Act. In the latter case, the two forms of instruction would be supported out of different Federal funds and a separate accounting will be required.

XIV. *May Federal moneys be used to pay a part of the salary of a supervisor or director of agriculture for such a portion of his time as he gives for supervision of agricultural schools in the State other than those qualified to receive Federal money? Was it the purpose of the Smith-Hughes Act to restrict the payments of salaries of supervisors of agriculture to service in the supervision of schools meeting the standards of the Smith-Hughes Act?*

Answer. In the opinion of the board it was the intent of the act to use a part of the agricultural fund for the salaries of supervisors who would give their time to the improvement of schools and classes receiving Federal moneys for instruction in agricultural subjects and not for the general supervision of agricultural training in the States.¹

SECTION III. QUESTIONS RELATING TO INDUSTRIAL EDUCATION.

I. *What should be the entrance requirements for the all-day schools?*²

Answer. While a minimum age of 14 is the only requirement in the Smith-Hughes Act, the Federal Board recommends that care be taken to secure pupils who are physically and mentally able to do the work required. While neither an absolute nor a uniform standard as to educational qualifications can be fixed, experience shows that pupils failing to make normal progress in the regular schools rarely do satisfactory vocational work. Ability to do the work of the all-day industrial school should be the determining test even after admission. A probationary period of attendance will enable the school to determine the boy's or girl's real ability. Communities maintaining all-day vocational schools should offer their opportunities to all capable boys and girls

¹ See sec. 10 in notes, supra.

² * * * That such education shall be of less than college grade and shall be designed to meet the needs of persons over 14 years of age who are preparing for a trade or industrial pursuit or who have entered upon the work of a trade or industrial pursuit." (Sec. 11.)

and should see to it that such schools do not become the resort of the undesirable, the feeble-minded, or the physically weak.

II. *When pupils work in a class and in a privately owned shop on alternate days, weeks, or months, are such schools to be considered all day¹ or part time?² What principles are to determine in any given year?*

Answer. The determining factor is whether the pupils, when in such shop, are entirely under the supervision and control of the school. If they are, it is an all-day school. If not, it is a part-time school. This is true regardless of the fact that the pupils are, or are not, paid. The final test is whether or not the shop work is carried on independently or as an integral part of the school.

III. *What is meant, in section 11, by the requirement that instruction in an industrial or trade subject shall extend over not less than nine months per year?¹*

Answer. This section is interpreted by the Federal Board as requiring a day industrial school to be in session during nine months of four weeks each, regardless of the calendar months, and including only such holidays as are commonly observed by the regular public schools.

IV. *What is meant by "hours" in the requirement that instruction in industrial, home economics, or trade subjects in a day school shall be given for not less than 30 hours per week?¹*

Answer. By hour is meant a period of 60 minutes, the "clock hour" being intended rather than that shorter recitation or study period sometimes called by schools an "hour."

V. *What is meant by practical work on a useful or productive basis?*

Answer. This is interpreted to mean work similar to that carried on in the particular trade or industry taught. Such work is on a useful or productive basis when it results in a product of economic value comparable with that produced by a standard shop or factory.

VI. *What work, other than shop work, given in an all-day school, may be included in the term "industrial subjects" for which teachers may be paid, in part, from Federal moneys?*

Answer. The State board must be satisfied that such work is inherent in the vocation taught in the school and is a subject which enlarges the trade knowledge of the worker. For example, in a machine-shop school which gives at least three hours a day to shop work, a part of the remaining time might be given to such topics as machine-shop mathematics, drawing as related to the machine-shop trades, science applied to the machine shop, and the hygiene of the trade. In a school which teaches printing, time devoted to related studies might be given to such subjects as estimating costs, English for printers, art in printing—such as the layout of a paper, proper margins, and title pages—science as related to printing, and hygiene of the trade. Before such work in related subjects can be reimbursed from Federal funds the State board must be satisfied

¹ " * * * That such schools or classes giving instruction to persons who have not entered upon employment shall require that at least half of the time of such instruction be given to practical work on a useful or productive basis, such instruction to extend over not less than nine months per year and not less than thirty hours per week." (Sec. 11.)

² " * * * That at least one-third of the sum appropriated to any State for the salaries of teachers of trade, home economics, and industrial subjects shall, if expended, be applied to part-time schools or classes for workers over 14 years of age who have entered upon employment." (Sec. 11.)

that the teacher has had satisfactory contact with the vocation in which the related work is supplementary.

VII. *The act¹ fixes the age of 16 years as a minimum entrance requirement for evening industrial schools. Does this mean that such schools shall be open to persons 16 years or over, or may a State establish an entrance age requirement above 16 years?*

Answer. Congress in enacting this provision has not declared that a minimum entrance requirement shall be fixed at not less than 16 years, but has specifically prescribed 16 years as the requirement. The board is of the opinion that this requirement is mandatory, and that consequently if the Federal funds are to be used to aid States in conducting education in schools of this character, such schools must be open to persons 16 years and over.

VIII. *The statute requires that schools which give instruction to persons who have not entered upon employment shall require that at least half the time of such instruction be given to practical work on a useful or productive basis, such instruction to extend over not less than nine months every year and not less than 30 hours per week.² Shall the half time for practical work be based on the minimum number of hours per week required by the statute or on the maximum number of hours which the school operates?*

Answer. The Board believes that the effect of the provision referred to in this question is twofold. (1) It requires that at least one-half the time given to instruction shall be devoted to practical work, irrespective of the number of hours per week required of students; (2) it establishes a minimum period of instruction. These requirements are in no way connected, but are, on the contrary, separate and distinct, and each must be given full force and effect. Consequently in cases where it is proposed to conduct schools for a longer period than the minimum prescribed by the act the half time for practical work must be based on the number of hours during which the school operates.

IX. *What kinds of work in part-time schools or classes will be entitled to reimbursement from Federal moneys?³*

Answer. It is neither possible nor advisable at the present stage of development of part-time schools and classes to define the many varieties and types which now or in the future may be entitled to national aid under section 2 of the Smith-Hughes Act.

In general, Federal moneys may be used to pay the salaries of teachers employed in those part-time schools or classes where wageworking boys or girls receive any or all of the following benefits:

(a) Increased skill or knowledge in the occupation which the wageworker is following.

(b) Skill or knowledge leading to promotion in the industry or calling wherein the wageworker is engaged.

(c) Improvement in the knowledge of regular subjects which the wageworker did not complete in school.

(d) Increased civic or vocational intelligence.

(e) Skill and knowledge in home economics for girls employed as wage-workers.

¹ " * * * That evening industrial schools shall fix the age of 16 years as a minimum entrance requirement * * * " (Sec. 11.)

² " * * * That such schools or classes giving instruction to persons who have not entered upon employment shall require that at least half of the time of such instruction be given to practical work on a useful or productive basis, such instruction to extend over not less than nine months per year and not less than 30 hours per week * * * " (Sec. 11.)

³ See note, p. 134.

In general any part-time school must be in session during a part of the working time (day, week, month, or year) of its pupils; while an evening school or class must be in session outside the regular working hours of its pupils.

When a community asks the State board to certify a part-time school or class for Federal aid, the board should require the local authorities to state the aim or aims of such school or class in terms of the approved benefits for wageworking youth set forth above. The State board should then measure the school or class, both at starting and while under supervision, by the standards which that school or class must establish in the light of its declared aims. To do this, the board must have full knowledge of all such facts as the occupations of the pupils, the length of the course in hours per day, week, month, or year, the plant and equipment, the courses of study, methods of instruction, and qualifications of teachers.

The number of aims or benefits which the school or class is to undertake should be governed by the number of hours available for instruction; and pupils should be so grouped and taught as to deal definitely with one aim at a time. Preferably, the aims should be few to insure effective results; and care should be taken not to attempt inconsistent or conflicting aims with the same pupils. For example, a part-time class, having but four hours per week for instruction, should not attempt for any given group more than two of the above aims as a maximum.

X. *What is meant by the expression "evening industrial schools * * * shall confine instruction to that which is supplemental to the daily employment?"*¹

Answer. Evening instruction can be given only in such subjects as will increase skill or knowledge in the occupation in which the worker is engaged as his daily employment, or as will lead to promotion or advancement in that work. The time available in an evening school is so short that it is impossible to teach a skilled trade to anyone unless he is engaged in daily work affording him opportunity to apply the skill or knowledge gained in the evening school, or unless the daily employment gives an experience which will enable the worker, with the knowledge or skill acquired in an evening school, to secure promotion in that occupation. The work can be most effectively given when workers in similar or allied occupations are grouped together.

SECTION IV. QUESTIONS RELATING TO HOME ECONOMICS.

I. *What interpretation, as applied to home-economics education, is given to the clause in section 11, providing that at least half the time of instruction shall be given to practical work on a useful or productive basis?*

Answer. This clause is held to mean that at least half of the time of instruction in the all-day school shall be devoted to instruction in vocational subjects designed as preparation for homemaking.

Vocational subjects in the field of home-economics education are of two groups: (1) Home-economics subjects, and (2) related subjects. (1) Home-economics subjects include garment making, foods and cookery, sanitation and home nursing, house planning and house furnishing, textiles and dressmaking, millinery, and home management. Instruction in these subjects include the actual handling of materials in laboratory practice as well as supplementary instruction in food values, selection and cost of clothing, etc., and the application of scientific principles essential to the laboratory work. (2) Related sub-

¹ " * * * That evening industrial schools * * * shall confine instruction to that which is supplemental to the daily employment." (Sec. 11.)

jects, include drawing and design as applied to clothing and the home, general science as applied to the household, household chemistry, household physics. Instruction in these subjects will include material from the field of science or of art, selected, organized, and presented to meet the needs of students of vocational home economics, and must be closely related and correlated with the instruction in home-economics subjects.

Hence, the program for the "vocational half day" of home economics may consist either (1) of home-economics subjects; or (2) of home-economics subjects and of related subjects, according to the needs of the group to be taught. In either case, the pupils pursuing the course of study in vocational home economics must be grouped separately for this half day of instruction.

The law requires a day school or class giving instruction in home economics to be in session at least 6 hours or 360 minutes daily. Of this 360 minutes half, or 180 minutes, must be devoted to instruction either (1) in home-economics subjects, or (2) home-economics subjects and related subjects. If the program for the half day of vocational subjects includes both home-economics subjects and related subjects, not less than 120 minutes of this half day or .10 hours weekly shall be devoted to home-economics subjects; and not more than 60 minutes of this half day or 5 hours weekly shall be devoted to instruction in related subjects such as those outlined above. In every case both conditions (1) and (2) should be recommended as the program for vocational home economics in day schools, the choice of one plan or of the other being made by each school or community according to the needs of the group to be reached.

The act provides that for cities of less than 25,000 population the State board, with the approval of the Federal Board, may modify the condition as to the length of the course and the hours of instruction per week. The Federal Board is of the opinion that in making such modifications the number of hours of instruction per week should in no case be less than 25, or the number of hours of instruction per day less than 5, a total of 300 minutes daily.

Of this 300 minutes at least half, or 150 minutes, must be devoted to instruction either (1) in home-economics subjects, or (2) in home-economics subjects and related subjects. If the program of the vocational half day includes both home-economics subjects and related subjects, not less than 90 minutes per day shall be devoted to instruction in home-economics subjects, and not more than 60 minutes daily, or 5 hours weekly to the related subjects.

II. *What is the meaning of the requirement in section 11 that evening-school instruction shall be supplemental to the day employment?*¹

Answer. The evening-school instruction must be given to those whose work is such that the skill or knowledge taught helps the worker in her present-day employment to greater efficiency, better wages, or promotion. This will admit to such classes those who are engaged to any extent or in any way in the performance of household duties.

III. *What effect upon the use of money for the payment of salaries of teachers of home economics has the fact that home economics is omitted from the caption of the Federal act? What effect would this have upon the use of money for home economics in States which, quoting from the caption of the Federal act, omitted home economics from the provisions of its enabling act?*

¹ " * * * That evening industrial schools shall fix the age of 16 years as a minimum entrance requirement and shall confine instruction to that which is supplemental to the daily employment; that the teachers of any trade or industrial subject in any State shall have at least the minimum qualifications for teachers of such subject determined upon for such State by the State board, with the approval of the Federal Board for Vocational Education." (Sec. 11.)

Answer. The language of the title² of the act is broad enough to include home economics, and if the States have accepted the provision of the act by quoting its title, the board will deem such action an acceptance of the benefits for home economics as well as for the other vocational subjects.

IV. *How far may successful experience in teaching home economics be accepted as a substitute for the training in that subject required as a qualification under the Smith-Hughes Act?*²

Answer. The Federal Board recognizes that in some States, at least, the new standards for qualification of teachers will be higher than those now required for certification and that schools have already made contracts with teachers for the school year 1917-18. Therefore, if the qualifications of teachers already employed approach the new standards and if these teachers can show successful experience in giving instruction in home economics of the character and grade for which the State board proposes to use Federal moneys, that experience may be accepted as a substitute. The State board, however, should require all such teachers to secure within a reasonable time the training necessary to meet the new standards.

APPENDIX B.

RULINGS AND DECISIONS OF THE FEDERAL BOARD.

The following are some of the rulings and decisions of the Federal Board for Vocational Education relative to institutions and work entitled to receive Federal assistance and those not so entitled. These rulings have been made subsequent to the publication of Bulletin No. 1. They are, for the most part, taken from letters written in answer to specific questions raised by the various State boards:

EVENING SCHOOLS AND CLASSES.

LENGTH OF COURSE.

Evening vocational classes are not interpreted as coming under the clause in section 11 which says "such part-time schools or classes shall provide for not less than 144 hours of classroom instruction per year." Evening classes are not limited by this clause but may be conducted for the benefit of men in industry for a shorter length of time than a total of 144 hours.

CHARACTER OF INSTRUCTION.

Classes in elementary mathematics for coal miners and beet-sugar factory workers could be considered as evening vocational classes only in case the instruction in mathematics is supplementary to the work these men were doing during the day. General instruction in evening school in mathematics for the purpose of improving the intelligence of workers or promoting general education could not be considered as vocational under the Smith-Hughes Act.

¹"An act to provide for the promotion of vocational education; to provide for co-operation with the States in the promotion of such education in agriculture and the trades and industries; to provide for the cooperation with the States in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditure." (Title of Smith-Hughes Act.)

²"* * * That the teachers of any trade or industrial subject in any State shall have at least the minimum qualifications for teachers of such subject determined upon for such State board, with the approval of the Federal Board for Vocational Education * * *." (Sec. 11.)

Instruction in English in evening-school classes would not be considered as supplementary to the daily occupation of persons employed in local railroad shops. The fact that the work in English did not parallel any other night-school course and that no other opportunity to get such work is open to these persons would not alter the case.

WHO MAY BE ENROLLED.

In a night-school class in applied mathematics operating with the aid of Smith-Hughes funds, organized for railroad-shop apprentices, it is permissible to enroll boys engaged in other industries in these classes, provided the instruction is supplementary to the day employment not only of the railroad-shop apprentices but to the work of the boys from other industries who are enrolled in the class.

It is not permissible to enroll students whose daily work is not classed as industrial in an evening-school class in applied mathematics operating with the aid of Smith-Hughes funds. If students are not employed in industrial pursuits during the day, it would not be possible to use Federal funds for the aid of any evening-school classes in which these students were enrolled.

APPORTIONMENT OF FUNDS.

Funds apportioned to State for trade, home economics, and industrial education may be used for evening-school work for pupils over 16 years of age in which the instruction will be supplementary to the day employment. State board may apportion such part of fund for support of evening schools as it may decide to apportion, provided that the minimum one-third of the total fund is reserved for part-time work.

PART-TIME SCHOOLS AND CLASSES.

CLASSES FOR OUT-OF-WORK BOYS AND GIRLS.

Schools established for out-of-work boys and girls to give them instruction between employments are part-time or general continuation schools, and not day schools within the meaning of section 11 of the Smith-Hughes Act.

PUPILS NOT IN REGULAR HIGH-SCHOOL COURSES.

Classes for part-time pupils grouped by themselves and not included in the regular high-school courses may receive benefit of Smith-Hughes Act, provided instruction organized for them as a separate group and intended to enlarge the civic intelligence of workers. This will not include the giving of commercial education as trade extension or trade preparatory work.

GENERAL CONTINUATION INSTRUCTION NOT CHARGEABLE TO HOME ECONOMICS.

All general continuation classes, whether for boys or girls, are to be reimbursed from the fund for trade and industrial education. Salaries of teachers of general continuation classes, whether those classes be made up of boys or girls, or both, are not chargeable to the maximum 20 per cent allowable for home-economics education. The salaries of teachers of home-economics subjects are chargeable against the maximum 20 per cent which may be used for home-economics education.

For the purpose of encouraging the rapid development of part-time education and increasing the number, variety, and enrollment of part-time classes the

Federal Board has recently made some important rulings concerning section 11 of the Federal act. These rulings became effective July 1, 1918. The part of the section referred to reads as follows: "That at least one-third of the sum appropriated to any State for the salaries of teachers of trade, home economics, and industrial subjects shall, if expended, be applied to part-time schools or classes for workers over 14 years of age who have entered upon employment, and such subjects in a part-time school or class may mean any subject given to enlarge the civic or vocational intelligence of such workers over 14 and less than 18 years of age; that such part-time schools or classes shall provide for not less than 144 hours of classroom instruction per year."

Stimulated by a desire to meet the needs of a large group of workers who are entering upon employment without adequate preparation, as well as of those already at work, the Federal Board passed the following resolution interpreting the phrase "who have entered employment."

Where persons definitely scheduled for employment in a trade or industrial occupation, by a written agreement with the employer are given before being employed instruction in a class fitting them for advantageous entrance to such trade or industrial occupation, such class may be considered as a part-time class and Federal moneys may be used for its support, under the provisions of section 11 of the vocational education act. Such classes may also be open to those already employed, who may receive better preparation in the occupation they are already following, or promotional training for a new occupation.

NOTE.—1. Such part-time classes may be carried on at the school, in the shop, in classrooms adjoining the shop, in a building near the shop, or elsewhere.

2. The instruction may be either manipulative in processes, or related to processes, or both.

3. Reimbursement may be made from Federal funds for one-half the salary of the instructor employed in this work, including the coordinator.

4. The course may be given once, twice, or more times each year, or may be operated continuously.

5. The scheme of training adopted must establish the presumption at the outset that it will give advantageous preparation for or advancement in the occupation in which each pupil is to be employed.

The following resolutions were adopted by the Board from a broad point of view concerning the meaning which could be legitimately given to the phrase "and such subjects in a part-time school or class may mean any subject given to enlarge the civic or vocational intelligence of such workers over 14 and less than 18 years of age":

1. Federal moneys may be used in part-time schools and classes for the salaries of instructors in trade, home economics, industrial, commercial, and general education subjects, as provided hereunder.

2. Such part-time classes must be classes which divide the working day or school time between instruction and practical work in shop, factory, home, office, etc.

(Note by the director.—"To divide" means here not to separate the working day and school time into two equal parts, but to apportion or distribute the total working day so that a portion of it is given to school instruction; or to apportion or distribute the total school time so that a portion of it is given to employment in shop, factory, home, or office, etc.)

3. The subjects taught must be such as are designed to "increase the civic or vocational intelligence of the pupil."

4. Federal moneys may be used for reimbursement for part of the salary of an instructor only in cases where it is shown that the cost of such an instructor represents an addition to the expenditures of the school system in-

curred because of the operation of such part-time classes over and above expenditures for regular classes.

5. Where such part-time pupils are taught in a regular day class already established so that the class does not represent an additional cost to the school system Federal moneys may not be used for the salary of the instructor of such a class.

6. Part-time schools or classes may be operated for persons over 14 years of age, without upper age limit, provided that the instruction given is designed for and suitable to enlarge the civic or vocational intelligence of workers over 14 and less than 18 years of age.

7. In the plans from the States two general groups of teachers shall be recognized and qualifications set up for under part-time schools or classes:

(a) Teachers of subjects designed to enlarge the civic intelligence.

(b) Teachers of subjects designed to enlarge the vocational intelligence.

In case of teachers in group (b) qualifications shall be set up for each separate line of vocations, namely, trade and industrial, commercial, and home economics, or other vocational lines in which instruction is to be given.

All classes must be organized according to the following provisions:

First. That the class is under public supervision and control.

Second. That the controlling purpose is to fit for useful employment.

Third. That all instruction is of less than college grade.

Fourth. That the instruction shall be for persons over 14 years of age.

Fifth. That every dollar of Federal funds expended for salaries of teachers is matched by a dollar of State or local money, or both.

Sixth. That the class provides for not less than 144 hours of instruction each year.

Seventh. That all the other requirements of section 11 of the Federal vocational education act must be observed.

TEACHER TRAINING.

PURPOSE OF COURSES.

It is the duty of State board to so adjust the teacher-training work that the money will be expended in the main for the preparation of those who are to teach in the vocational schools, and not for the training of teachers of home economics or of agriculture in general.

QUALIFICATIONS OF INSTRUCTORS.

Federal board has up to the present set up no qualifications for persons giving the teacher-training work. This has been a matter left open for adjustment with the various State boards.

PAYMENT DIRECT BY STATE BOARD.

In cases where teacher training is carried on directly by State board and persons engaged in work are in the employ of State board, expenditures may be made directly from Federal funds, provided each expenditure is matched dollar for dollar with expenditures from State funds for the same purpose.

PAYMENT AS REIMBURSEMENT.

Institutions carrying on teacher-training work must pay those engaged in teacher training and then claim reimbursement from State board in the same way that districts hiring teachers make claim for reimbursement. State board should not pay directly persons employed by institutions for teacher-

training work. Money should always be paid the institution as reimbursement for expenditures already made.

TEACHERS OF AGRICULTURE.

Training of teachers of carpentry, blacksmithing, and the like can not be considered training teachers of agriculture, although teachers of agriculture might be given some instruction in blacksmithing and carpentry.

REIMBURSEMENT FOR EXPENDITURES IN THE MAINTENANCE OF TEACHER TRAINING.

Charges for light, heat, rent, and janitor service are not allowed unless it can be clearly shown that the expenditures are specifically and solely for the maintenance of the teacher-training work and not a mere prorating of expenses which would ordinarily be borne by the institution in the regular course of its instruction.

Section 17 of the act says: "No portion of any moneys appropriated under this act for the benefit of the States shall be applied directly or indirectly to the purchase, erection, preservation, or repair of any building or buildings or equipment." It is, therefore, necessary to distinguish between equipment which may not be paid for in any part from Federal funds and supplies which may be paid for in part from Federal funds in connection with teacher training.

Equipment.—Any physical object, exclusive of structures supposed to last year after year with reasonable use. All furniture, apparatus, tools, machinery, lighting and plumbing fixtures, books, typewriters, filing cabinets, lantern slides, charts, or any other article of durable material which is expected to last year after year when used reasonably.

Supplies.—Any material or article the use of which results in the physical consumption of the thing used. This excludes the notion of the continued use for year after year of the same article or piece of property, as the case with tools, machines, furniture, and apparatus, which are equipment. The use of paper, chemicals, brooms, brushes, chart cloth, ink, notebooks, seeds, fertilizers, etc., actually destroys the substances or uses them up, hence they are classified as supplies.

No charge is to be made to students for supplies which have been paid for in part from Federal funds. Federal funds may not be used for the purchase of supplies which are manufactured into a commercial product; that is, Federal funds may not be used for the purchase of foodstuffs which are used for the manufacture of foods to be sold in a cafeteria or lunch room.

REIMBURSEMENT.

A QUALIFYING SCHOOL.

If a school or class can in good faith be brought before the close of the current year to a point where it meets all the requirements of the State and Federal boards, reimbursement may be made for the work of the entire year or such part of the year as the work may have been under way.

STATE BOARD MUST SHOW STATE EXPENDITURES.

Since the legitimate expenditure of all moneys apportioned to the States under the Smith-Hughes Act is conditioned upon the expenditure of a dollar of State or local money, or both, for each dollar of Federal money expended, it will be necessary for the State board to make an accounting not only of the

Federal moneys, but of all State or local moneys used to meet this provision of the act. This does not mean that the individual dollar of State or local moneys is to be accounted for, but that an accounting will be necessary of all moneys expended for which reimbursement is made in part from Federal funds.

BASIS OF USE OF FUNDS.

It is not possible to use State funds for traveling expenses and use a similar amount of the Federal funds for the salaries of teachers. Basis of use of Federal funds is matching State or local money for exactly the same purpose for which it is proposed to use Federal money. The fund for salaries of teachers can not be used for travel, therefore money used for travel can not be used as an offset for money from the fund for salaries of teachers.

TO LOCAL COMMUNITIES.

When services have been rendered the State board should issue a warrant in favor of the local board. Whether or not the warrant is issued monthly, quarterly, or yearly makes no difference to the Federal Board, so long as the State board is absolutely certain that the work done was in conformity with the plans which have been submitted by the State board and approved by the Federal Board. A quarterly or annual reimbursement is to be preferred. If money is to be apportioned quarterly, then the schools should make quarterly reports, and such inspections as are necessary should be made each quarter. If reimbursements are made annually, it would seem as though the one report, together with the inspections of the supervisors, would be the guide in determining whether or not a particular school is entitled to reimbursement. It is understood, of course, that it is largely a matter for the State board to decide as to just what evidence the board will require. The State board should protect itself both by a sworn report from the school authorities and inspections by representatives of the State board.

UNEXPENDED BALANCE IN TREASURY.

The unexpended balance of a year is to remain in the State treasury as a part of the next year's allotment and the deduction of that amount from the annual appropriation is because of the fact that such part of the annual apportionment is made up by having this unexpended balance on hand. The law provides for this annual settlement in order that the funds may not be cumulative, and the arrangement is made in this way rather than by having the unexpended balance returned and the full amount appropriated to save the double transfer of the unexpended balance.

SALARIES, METHOD OF PAYMENT.

In paying the salary of a supervisor of agriculture in the employ of the State board either of two methods may be used, (1) State board may pay entire salary and then draw on Federal funds for reimbursement to the extent of one-half of the amount paid, or (2) half of salary may be paid directly by State board from State funds and other half by the State treasurer from Federal funds upon requisition of the State board for vocational education.

FEDERAL FUNDS NOT TO RELIEVE STATE OF BURDEN UNDERTAKEN.

There has been no ruling concerning the use of Federal funds in schools maintained wholly by State funds. The Federal Board has assumed, however, that Federal funds might be used in such State-supported schools under the

same conditions as in schools supported by local funds, or they might be used in schools supported only in part by State funds.

Smith-Hughes money is to be used for promoting work in vocational education and not to relieve the State of the burden of supporting work already undertaken by the use of State funds.

In schools now supported entirely by State funds Federal funds might be used in partial support of new work undertaken or any extension of work already under way, provided the work is in conformity with the provision of law and the State plan.

STATE TREASURER, NO COMPENSATION.

Section 13 indicates that the State treasurer, acting as custodian of the Federal funds, is appointed by the State and is acting for the State. It is therefore reasonable to conclude that if he is to receive any compensation for acting in this capacity that compensation should come from the State rather than from the Federal Government. Regardless, however, of the equity of the case, there is no provision in the Federal act for compensation for the State custodian.

PRELIMINARY INSPECTION NOT CONCLUSIVE.

Where an institution after a preliminary inspection has been found to be properly prepared to undertake work, this would not necessarily mean that the work done by that institution would be approved in advance, since the preliminary inspection would merely be for purpose of determining whether or not conditions were such that there would be any possibility of successful instruction being given. Whether or not successful instruction was actually given could be determined only after the work had been done.

STATE TRADE SCHOOLS.

It would be entirely feasible to attempt trade and industrial instruction in a special school under State direction. Reimbursements for salaries of teachers could be made to such a school on the same basis and under the same conditions as to a local school.

HOME PROJECT WORK IN HOME ECONOMICS.

Home project work in the summer can not under the law be accepted in lieu of a portion of the half day during the school year required for practice work. Desirable that home projects during the summer be carried on, but can not be required.

FEDERAL FUNDS MAY BE USED IN GIVING INSTRUCTION TO SKILLED OPERATIVES.

Federal funds may be used in maintaining classes giving instruction to skilled operatives in the employ of private plants in methods of teaching as applied to the particular occupation in which they are engaged, operatives to return, when instruction is completed, to their plants as industrial teacher to establish and give training in these plants.

Instructors engaged in giving training to be in the employ of the State board of education and to be entirely under the control and supervision of State board.

FUNDS MAY BE USED FOR AGRICULTURAL CLASSES COMPOSED OF WOMEN.

There is no reason for withholding Federal aid for approved work in agricultural classes composed wholly or in part of girls and women. Experience, however, shows that vocational instruction in agriculture for mixed classes—

that is, classes composed of men and women—have, for the most part, been found unsuccessful. The Federal board has made no distinction with regard to the sex of persons who might be admitted to any class, except in so far as the inclusion of both sexes in a class might serve to defeat the aim or purpose of the class. It probably would make quite a difference as to what agricultural work was being given as to whether or not instruction could be successfully carried on with a mixed class.

STATE BOARDS AND STATE TREASURER, RESPONSIBILITY.

Interpretation given to sections 13 and 14 is that State treasurer is responsible only for the safe-keeping of the Federal funds placed in his care. State board for vocational education is the agent with whom and through whom the Federal Board deals. Federal Board therefore looks to the State board for the proper observance of the provisions of the act, the policies set up by the Federal Board, and the plans approved by the State board and the Federal Board for carrying out the provisions of the act in the State.

State treasurer is responsible for the safe-keeping of the funds placed in his care, and for accounting for interest earned on these funds. He is required by the terms of the act to honor requisitions issued by the State board. Whether or not these requisitions are properly signed and duly executed is, of course, a question which he will determine before honoring them: As to whether or not the expenditures are made for the purposes set up in the law is a matter entirely between the State board and the Federal Board and one over which the State treasurer has no control and with which he has no concern.

HOME ECONOMICS.

Federal Board has made no ruling which requires any part of appropriation for trades, industries, and home economics shall be used for home economics. Section 3 provides that not more than 20 per cent may be used for home economics. This restriction is restriction on maximum amount that could be used for home economics and not a restriction on amount that could be used for trades and industries. Expression "not more than" implies that a great deal less than 20 per cent could be used. In fact, all of it could be used for trades and industries, but 20 per cent may be used for home economics.

REIMBURSEMENT FOR EXPENSES.

State board may requisition Federal funds from the teacher-training allotments contemporaneously with similar requisitions from State funds and do this throughout the year, provided always, of course, that such requisitions are made on the basis of reimbursement for expenditures already incurred. In the case of work carried on directly by State board, reimbursement may be made for services already performed, or for supplies already delivered, or in other ways for value received, the essential facts here being first that each Federal dollar shall be matched by State or local dollar and that such money will be paid only for services already rendered.

EVENING CLASSES.

The Federal Board will approve evening courses for home makers given in the afternoons for women who find it inconvenient or impossible, on account of their families, to attend similar courses after sundown, it being assumed that this group would be employed in the evening in their home and that their free time would be in the afternoon.

Classes composed of housewives held in the afternoon may be considered evening classes on the basis that the instruction is given outside of their working hours and is related to their employment.

DIRECTION AS TO FEDERAL FUNDS.

INSTRUCTIONS FROM THE FEDERAL BOARD TO THE VARIOUS STATE BOARDS ON FINANCIAL MATTERS OF MOMENT.

A statement of points to be observed by State boards for vocational education to avoid confusing funds for the fiscal year ended June 30, 1918, with funds for the fiscal year ending June 30, 1919:

1. Three quarterly allotments have been made and the fourth will soon be made for the fiscal year ended June 30, 1918.

2. The money referred to in No. 1 above is to be used only for work done previous to July 1, 1918. The payments for this work may be made any time previous to the closing of the accounts in time for the annual report of the State board to the Federal Board September 1.

3. The State treasurer is to hold the unexpended balance. The State board should notify him to this effect so that he will not be returning it to the United States Treasury. This unexpended balance will be used by the United States Treasury for apportionments to be made to the State for the fiscal year ending June 30, 1919. This method of procedure saves a double transmitting of the money.

4. The financial statement to be submitted annually by the State board for vocational education must contain as a part thereof an affidavit executed by the State custodian of vocational funds showing the banks or other depositories in which the Federal funds have been deposited while under his care, and the amount of interest, if any, earned by such funds during the fiscal year covered by the report. If interest has been earned the affidavit should be accompanied by check drawn to the order of the Secretary of the Treasury covering the amount thereof. The interest should be computed up to and including June 30 for the past fiscal year.

If a State board wishes to continue for the fiscal year ending June 30, 1919, work begun and approved by the Federal Board for the fiscal year ended June 30, 1918, and desires to use money from the apportionments for the fiscal year ending June 30, 1919, on this work, before the approval of the entire State plan for the fiscal year ending June 30, 1919, the State board should make application to the Federal Board for authorization to do so. In other words, if the State board finds that any of its work already under way and authorized by the Federal Board will be hampered by delay in the apportionment of the funds, the Federal Board is willing to make arrangements whereby a portion of the unexpended balance of the apportionment for the fiscal year ended June 30, 1918, now in the hands of the State treasurer, may be made available for immediate use as apart of the apportionment for the fiscal year ending June 30, 1919.

USE OF TEACHER-TRAINING FUNDS.

State boards are authorized to use teacher-training funds for the maintenance of teacher training and supervision on the following conditions:

That a plan of supervision be set up by the State board and approved by the Federal Board.

That the qualifications of supervisors be set up by the State board and approved by the Federal Board.

That all supervisors employed in connection with supervision for the maintenance of which Federal funds are used, shall meet the qualifications set up by the State board and approved by the Federal Board, and that such supervisors shall be employed by and responsible to the State board for vocational education.

That not more than 25 per cent of the maximum which may be used for teacher training in any one of the three lines—trades and industries, home economics, and agriculture—be used for the maintenance of supervision in that line.

Note by the director.—The maximum amount of the teacher-training fund which may be used in any fiscal year in any one of the three lines is 60 per cent of the total amount allotted to the State for that year for teacher training. Twenty-five per cent of this maximum in any one of the three lines is 15 per cent of the total teacher-training fund.

For example: Suppose the total amount of Federal moneys for teacher training in all lines allotted to a State for a given fiscal year is \$10,000. Since 60 per cent of this, or \$6,000, could, under the act, be used for teacher training in agriculture, or in trades and industries, or in home economics, then it is possible under paragraph 4 above to use 25 per cent of this \$6,000 (60 per cent of the total), or \$1,500, for the supervision of instruction throughout the State in agriculture, \$1,500 for the supervision of instruction in trades and industries, and \$1,500 for the supervision of instruction in home economics.

This would give a possible total of \$4,500 for the supervision of teachers in service, leaving \$5,500 for the preparation of teachers for service.

Since the moneys from the teacher-training fund used for the supervision of the training of teachers in service can be used for the same purposes in such supervision as the moneys used for other forms of teacher training it follows as per memo F that the teacher-training money used for such supervision may be expended for these purposes: Salaries of supervisors, clerical service, travel, communication, printing, and supplies.

RULING ON THE 20 PER CENT MINIMUM.

THE FEDERAL BOARD MAKES A DECISION FOR GUIDANCE OF STATE BOARDS IN EXPENDITURE OF FEDERAL FUNDS.

The following is from the minutes of the meeting of the Federal Board, July 11, 1918, where it was voted:

"That the Federal Board approves the following resolution with reference to the use of the minimum 20 per cent of money appropriated for the training of teachers:

"That for the current fiscal year a State will not be required to expend the minimum 20 per cent for teacher training for each of the three lines of agriculture, home economics, and trades and industries, if the State board can show that the expenditure of the minimum 20 per cent is unnecessary in order to provide an adequate supply of teachers in any one of the three lines.

"That not more than 60 per cent of the teacher-training fund shall be expended for any one of the following purposes: For the preparation of teachers, supervisors, or directors of agricultural subjects; for the preparation of teachers of trade and industrial subjects; and the preparation of teachers of home economics subjects.

"That the Federal Board points out to the States the requirements of section 5 of the Smith-Hughes Act, that after June 30, 1920, it will be necessary to establish teacher training for agriculture in order to use any Federal moneys for agricultural education, teacher training for home economics in order to use any Federal moneys for home economics education, and teacher training for trades

and industries in order to use any Federal moneys for trade and industrial education.

"That the governors of all States be apprised of this decision of the Federal Board and that they be reminded of the same at a time near to the time of meeting of the State legislatures."

APPENDIX C.

RESPONSE OF STATES TO THE SMITH-HUGHES ACT.

ALABAMA.

As the State legislature did not meet in 1917, the Federal act was accepted by the governor, and a board of seven members was appointed to cooperate with the Federal Board in the administration of the provisions of the act.

ARIZONA.

The Federal act was accepted by State statute approved March 12, 1917. The State board of education was designated as the board to cooperate with the Federal Board. The State statute appropriated a sum of money sufficient to meet the requirements of the Federal act, provided said sum shall not be less than \$15,000 annually.

ARKANSAS.

The Federal act was accepted by State statute approved March 6, 1917. The State board of education was designated as the board to represent the State.

CALIFORNIA.

The Federal act was accepted by State statute approved May 31, 1917. The State board of education was designated as the administrative board and a vocational education fund created to be composed of funds received from the Federal Government and a like amount to be transferred from the general funds of the State.

COLORADO.

The Federal act was accepted by State statute approved April 10, 1917. The State board of agriculture was designated as the State board and was authorized to act until the constitution of the State was amended so as to provide for an appointive board of education. The act provides that funds appropriated for the maintenance and support of institutions and schools under control of the board are available for defraying cost of administration of the State and Federal acts and also for meeting the Federal appropriation.

CONNECTICUT.

The Federal act was accepted by State statute approved May 17, 1917. The State board of education was authorized to cooperate with the Federal board. An appropriation of \$23,000 was made to carry out the provisions of the Federal act.

DELAWARE.

The Federal act was accepted by State statute approved April 2, 1917. The State board of education was designated to act for the State. An appropriation of \$30,000 was made—\$15,000 for the year ending June 30, 1918; \$15,000 for the year ending June 30, 1919.

FLORIDA.

The Federal act was accepted by State statute approved June 5, 1917. The board of education was created the State vocational education board, and the good faith of the State was pledged to make available funds sufficient at least to equal the sums allotted from the appropriations made by the Federal act and to meet all conditions necessary to entitle the State to the benefits of said act. The State statute also appropriated \$15,500 available for the year ending July 1, 1918, and \$18,840 for the year ending July 1, 1919.

GEORGIA.

The Federal act was accepted by State statute and a State board of vocational education was created to cooperate with the Federal Board. The State board, in offsetting Federal appropriations, was directed to take advantage of whatever appropriations the State of Georgia makes to local schools, municipal, county, district agricultural schools, normal schools, and the teacher-training department of the University of Georgia, in order to secure funds, and also to take advantage, if permissible, of any appropriations made by any municipality or county of the State to any school of a vocational character. To make up any deficiencies that may occur, the board was empowered to use, so far as may be necessary, \$15,000 from any funds not otherwise appropriated in the State treasury.

IDAHO.

The Federal act was accepted by the governor, October 31, 1917, and the State board of education was created to cooperate with the Federal Board.

ILLINOIS.

The Federal act was accepted by the governor, and a State board for vocational education was created to cooperate with the Federal Board.

INDIANA.

The Federal act was accepted by State statute approved March 7, 1917. The board of education was designated as State board. By previous legislation, State funds are available for the support of schools and classes receiving Federal moneys under the Smith-Hughes Act.

IOWA.

The Federal act was accepted by State statute approved April 23, 1917, and the State board for vocational education was designated to cooperate with the Federal Board and authorized to make such expenditures for the salaries of assistants and for such office and other expenses as it may deem necessary to the proper administration of the funds allotted under the provisions of the Federal act. By act approved April 21, 1917, \$2,500 was appropriated for the expenses of the board. This act also provided that in order to meet the requirements the local community must expend an amount equal to the amount of Federal money received, and authorized boards of directors of school districts to carry on vocational instruction and to pay the expenses of such instruction in the same way as the expenses for other subjects in public schools are now paid.

KANSAS.

The Federal act was accepted by State statute approved March 12, 1917. The board of education was designated as State board, and \$32,000 was appropriated for the fiscal year ending June 30, 1918, and \$45,000 for the fiscal year ending June 30, 1919.

KENTUCKY.

In view of the fact that there was no session of the legislature during the year 1917 the Federal act was first accepted by the governor in a letter dated August 31, 1917, and the board of education was designated as the State board to cooperate with the Federal Board.

At the first regular session after the passage of the Federal act the State legislature formally accepted the Federal statute. By this legislation, which was enacted March 6, 1918, the cooperating board was changed from the State board of education, as designated by the governor, to the vocational education board, created by the State act, consisting of the superintendent of public instruction, the president of the University of Kentucky, the attorney general, the secretary of state, and two other men appointed by the governor, one of whom under the requirements of the act must be a superintendent of schools and the other engaged in farming or other business.

The following appropriations were made by the State act: For the purpose of carrying on teacher training and instruction in the State, \$12,493 for the year ending June 30, 1918, \$17,491 for the year 1919, \$22,988 for the year 1920, and \$24,987 for the year 1921 and annually thereafter; for the purpose of paying for the inspection and supervision of courses in vocational education, agriculture, home economics, and trade and industrial education, \$2,500 annually.

LOUISIANA.

As the General Assembly of the State of Louisiana did not meet in regular session during the year 1917, the Federal act was accepted by the governor on November 20, 1917, and the board of education designated as the State board to cooperate with the Federal Board.

On June 27, 1918, the Federal act was formally accepted by the State legislature and the State board of education, together with representatives of the State federation of labor, to be named by the governor, was designated as the State board, to cooperate with the Federal Board in the administration and enforcement of vocational education within the State. This board was empowered to make such expenditures for its expenses and salaries of assistants as was necessary for the proper administration of the act.

MAINE.

The Federal act was accepted by State statute and a board created consisting of three members to cooperate with the Federal Board.

MARYLAND.

The Federal act was accepted by the governor, and the board of education designated as the State board. At the first regular session of the State legislature, after the passage of the Federal act, the Federal statute was formally accepted and the State board of education was authorized and directed to cooperate with the Federal Board.

This board was also authorized to make such expenditures for the actual expenses of the board and the salaries of assistants as in its judgment was deemed necessary.

MASSACHUSETTS.

The Federal act was accepted by State statute approved May 2, 1917, and the board of education designated as State board. Certified by the Federal Board to the Secretary of the Treasury as being entitled to receive Federal moneys

for the year 1917-18; \$5,000 for agriculture; \$36,949.59 for trade, home economics, and industry; and \$18,367.37 for teacher training; total, \$60,316.96. By previous legislation State funds are available for the support of schools and classes receiving Federal money under the Smith-Hughes Act.

MICHIGAN.

The Federal act was accepted by State statute approved May 5, 1917. A board consisting of four members was created as the State board of control for vocational education to cooperate with the Federal Board in administering the provisions of the act, and was authorized to incur such expenditures for office administration and other incidental expenses as it may deem necessary to the proper administration of the funds allotted to the State under the provisions of the Federal act. A sum equal to the allotment of Federal funds to be paid to institutions engaged in training teachers of vocational subjects was appropriated. The act also provided that schools receiving benefits of Federal funds were to appropriate for salaries of instructors one-half of the Federal allotment, the balance needed to meet Federal funds to be appropriated from the State treasury.

MINNESOTA.

The Federal act was accepted by State statute approved April 21, 1917. The State high-school board was authorized to cooperate with the Federal Board and also authorized to make such expenditures as were necessary to carry out the provisions of the act from moneys available for the purposes of State act.

MISSISSIPPI.

The Federal act was accepted by State statute approved October 11, 1917. A State board for vocational education was created to cooperate with the Federal Board, and the good faith of the State was pledged to make available funds sufficient at least to equal the sums allotted from the appropriations made by the Federal act and to meet all conditions necessary to entitle the State to the benefits of said act. An appropriation of \$1,450 was made for such expenses as were necessary to enable the State to meet its share of the cost of cooperation from July 1, 1917, to January 1, 1918.

MISSOURI.

The Federal act was accepted by State statute approved March 15, 1917. The board of education was designated as the State board and was authorized to incur necessary expenditures for salaries of assistants. Schools and institutions receiving benefits of Federal moneys are declared by the act to be entitled to receive for salaries of teachers an allotment of State moneys equal in amount to the Federal funds received.

MONTANA.

The Federal act was accepted by State statute approved March 5, 1917. The board of education was designated as State board, and \$15,000 was appropriated for the year ending February 28, 1918; \$15,000 for the year ending February 28, 1919.

NEBRASKA.

The Federal act was accepted by State statute. A State board for vocational education was created to cooperate with the Federal Board, and the good faith

of the State was pledged to make available funds sufficient at least to equal the sums allotted from the appropriations made by the Federal act and to meet all conditions necessary to entitle the State to the benefits of said act. An appropriation of \$2,500 was made to defray the expense of the State board, and an additional sum of \$18,500 was appropriated to enable the State to meet its share of the cost of cooperation under the Federal act.

NEVADA.

The Federal act was accepted by State statute approved March 24, 1917. The board of education was designated as State board, and \$30,000 was made available in the biennial period beginning July 1, 1917.

NEW HAMPSHIRE.

The Federal act was accepted by State statute approved April 19, 1917. The State board for vocational education was created, and the good faith of the State was pledged to make available funds sufficient at least to equal Federal allotment.

NEW JERSEY.

The Federal act was accepted by State statute approved March 24, 1917. The board of education was designated as State board. The State statute appropriated each year a sum not less than the maximum which the State can receive for training of teachers under the Federal act for the ensuing year; also each year a sum not less than \$1,000 for salaries of teachers, supervisors, or directors of agricultural subjects in order to secure for the State the advantages of supervision of agricultural subjects.

NEW MEXICO.

The Federal act was accepted by State statute approved May 5, 1917. The board of education was designated as State board, and \$15,000 was appropriated each year for two years.

NEW YORK.

The Federal act was accepted by State statute approved May 21, 1917. Regents of the University of the State of New York were designated as State board to cooperate with Federal Board. By previous legislation, State funds are available for the support of schools and classes receiving Federal moneys under the Smith-Hughes Act.

NORTH CAROLINA.

The Federal act was accepted by State statute and a State board for vocational education created.

NORTH DAKOTA.

As the Legislature of North Dakota failed to take action upon the acceptance of the Federal act at its session held during the year 1917, the act was accepted by the governor on December 8 of that year, and the State board of education was designated as the board to cooperate with the Federal Board in administering its provisions.

OHIO.

The Federal act was accepted by State statute approved March 30, 1917. A state board was created, consisting of the superintendent of public instruc-

tion and six members to be appointed by the governor. The statute provides that any schools and institutions receiving benefits of Federal money should be entitled to receive allotment of State money for salaries of teachers equal in amount to the amount of Federal money received. The State board is to recommend to each session of the legislature the amounts of money to be appropriated.

OKLAHOMA.

The Federal act was accepted by State statute approved March 24, 1917. A State board for vocational education, composed of five members, was created to cooperate with the Federal Board, and the good faith of the State was pledged to make available funds sufficient at least to equal the sums allotted to the State under the provisions of the Federal act and to meet all conditions necessary to entitle the State to the benefits of that act. The sum of \$70,832 was appropriated; \$35,416 for the fiscal year 1917-18, and a like amount for the fiscal year 1918-19.

OREGON.

The Federal act was accepted by an executive document dated May 12, 1917, and the good faith of the State was pledged to make available funds sufficient at least to equal the sums allotted from appropriations made by Federal act and to meet all conditions necessary to entitle the State to the benefits of the Federal act. Five persons were appointed by the governor to act as the State board to cooperate with the Federal Board.

PENNSYLVANIA.

The Federal act was accepted by State statute approved July 11, 1917, and the board of education of the State was designated as State board. By previous legislation State funds are available for the support of schools and classes receiving Federal moneys under the Smith-Hughes Act.

RHODE ISLAND.

As the general assembly failed to take action upon the acceptance of the Federal act at its session held during the year 1917, the act was accepted by the governor December 31, so far as it related to trade and industrial education, and the State board of education and the commissioner of public schools were designated as the State board for vocational education to cooperate with the Federal Board.

At the regular session of the assembly in January, 1918, a bill was introduced and passed April 17, 1918, formally accepting all the provisions of the Federal act, and the State board of education was designated as the agency to cooperate with the Federal Board in the administration of the provisions of the said act.

SOUTH CAROLINA.

The Federal act was accepted by State statute approved February 27, 1917. The board of education was designated as State board. By another statute provision was made for the teaching of agriculture in the public schools of the State to be under State supervision, and \$10,000 was annually appropriated for this purpose.

SOUTH DAKOTA.

The Federal act was accepted by State statute approved March 10, 1917, effective July 1, 1917. A State board composed of seven members was created to cooperate with the Federal Board. The State board of regents of education

was directed to designate institutions in which classes for teacher training should be maintained and to apportion to institutions so designated the Federal aid received for such purpose, and also apportion from the funds appropriated by the State for the maintenance of such institutions a sum equal to such Federal aid.

TENNESSEE.

The Federal act was accepted by State statute approved March 31, 1917. The board of education of the State was designated as State board.

TEXAS.

The Federal act was accepted by State statute. The board of education was designated as the State board to cooperate with the Federal Board, and the good faith of the State was pledged to make available funds sufficient at least to equal sums allotted under the Federal act and to meet all conditions necessary to entitle the State to the benefits of that act. For the scholastic year 1917-18, \$28,950 was appropriated for agricultural education, \$11,000 for industrial and home economics education, \$21,200 for training teachers. For the scholastic year 1918-19, \$44,925 was appropriated for agricultural education, \$16,500 for home economics and industrial subjects, and \$29,580 for teacher training.

UTAH.

The Federal act was accepted by State statute approved March 17, 1917. The board of education of the State was designated as State board. A special fund was created known as Federal vocational education fund of Utah.

VERMONT.

The Federal act was accepted by State statute, the board of education designated as State board, and \$30,000 was appropriated for the purpose of carrying out the provisions of the act.

VIRGINIA.

The Federal act was accepted by proclamation of the governor, dated March 28, 1917, and the State board of education was designated to cooperate with the Federal Board.

At its first session after the passage of the Federal act, the State legislature, on April 9, 1918, formally accepted the provisions of the Federal act and designated the State board of education as the agency to cooperate with the Federal Board.

The State act also provided the following appropriations: For the fiscal year ending on the 28th day of February, 1919, the sum of \$48,155; for the fiscal year ending on the 29th day of February, 1920, the sum of \$63,460, such sums to be used exclusively for the promotion of vocational education in agriculture, and in the trades, home economics, and industries in high schools, and for the preparation of teachers of vocational subjects, as provided in the Federal act.

WASHINGTON.

The Federal act was accepted by an item in the State appropriation act. The board of education was designated as State board, and \$12,000 appropriated.

WEST VIRGINIA.

The Federal act was accepted by State statute, and the State board of regents was designated as board to cooperate with Federal Board.

WISCONSIN.

The Federal act was accepted by State statute. The State board of industrial education was designated as the board to cooperate with Federal Board, authorized to employ a director of vocational education and assistants for the development and supervision of industrial education. By previous legislation State funds are available for the support of schools and classes receiving Federal moneys under the Smith-Hughes Act.

WYOMING.

The Federal act was accepted by State statute. The board of education was designated as State Board, and \$3,000 was appropriated.

APPENDIX D.

STATE LEGISLATION.

The success of a State in the promotion of vocational education depends in a large measure upon the laws of the State. The Federal act is specific in only three points concerning what legislation shall be enacted in order to permit the State to cooperate in the administration of the Federal act. These are:

1. The acceptance of the provisions of the Federal act.
2. The appointment of a State board to administer the act.
3. The appointment of the State treasurer as custodian of the Federal funds.

These three points do not cover a full program for vocational education in any State. If the legislation enacted provides these three only, the State is handicapped in its efforts to provide a satisfactory administration. It is obliged to depend upon the use of moneys appropriated for other purposes than vocational education to secure traveling expenses for the executive officer, the salaries of any directors or supervisors that may be employed to assist the State board in administering the act, and upon appropriations to higher institutions to promote and maintain teacher training, and upon the appropriations made by local districts to match Federal aid.

Again, unless there is additional legislation in the State the limit of funds available to subsidize vocational education would, of necessity, be the amount apportioned to the State annually.

The Federal Board does not attempt in any way to coerce legislation in any State. It does, however, through its representatives, stand ready to give advice as to what legislation would be most desirable.

To receive the maximum benefits of the Federal act, each State should enact legislation covering the following:

1. Acceptance of all the provisions of the Federal act, the appointment of a custodian of the Federal funds, and the appointment or designation of a State board for vocational education.

2. Appropriations for use of the State board designated for vocational education of an annual sum sufficient for the expenses of the board, including—

- (a) State vocational director.
- (b) Specialists to supervise agricultural, trade and industrial, and home economics education, and teacher training.
- (c) Office and clerical assistance, transportation, publication, and all other necessary expenses.

(This legislation is also absolutely necessary for efficiency.)

3. Appropriations to be administered and disbursed by the State board designated for vocational education of an annual sum sufficient to match Federal funds available each year for—

(a) Teacher-training funds.

(b) Funds for salaries of supervisors, teachers, or directors of agricultural subjects and for the salaries of teachers of trade and industrial and home economics subjects.

NOTE.—While the legislation setting aside funds for (a) and (b) is not mandatory in any sense it is highly desirable in the development of an efficient system of vocational education for any State. As the supervision and control of the training of teachers for vocational teachers is vested in the State board, the State board should have at its disposal sufficient funds to match the Federal moneys. This will do away with the necessity of asking institutions to use money appropriated for other purposes, as has been necessary in certain instances.

4. Authorizing the State board designated for vocational education to set up standard qualifications for and to examine and legally certificate all types of teachers who may be employed in day, part-time, and evening schools for agriculture, trade and industry, and home economics which may receive funds from the Smith-Hughes Act.

NOTE.—Any consideration for legislation under this head should take into account existing constitutional and legal provisions concerning certification. State boards should not be hampered in securing properly qualified teachers for vocational work, nor should they be required to resort to subterfuge in order to certificate teachers for this work.

5. Laws designed to establish and foster part-time and continuation education. (This legislation is necessary better to enable the State to expend the one-third of the Smith-Hughes fund for trade and industrial education, which, if spent at all, must be spent for part-time education.)

In addition to the above five specific recommendations the Federal Board believes that the promotion of vocational education will best be secured when a State legislature passes an act which puts the State squarely behind vocational education as such and provides that any community may establish vocational schools and be assured of reimbursement from Federal and State funds, making appropriations from the State treasury to supplement the apportionment to the State in case the number of schools established in the State requires a greater sum for such reimbursement than can be furnished by the Federal funds.

While the Federal Board has not attempted to require particular legislation, it has offered the following as suggested type legislation:

In enacting legislation covering each of the fields above designated each State ought to be guided by its own intimate knowledge of the legislative procedure and should consider all of the complicated conditions peculiar to each of the several States. The type act which is incorporated as part of this memorandum, and which here follows, should be considered as suggestive only. It is sent to the States for the purpose of directing their attention to the points which could be covered in the various sections of each act.

Sections covering all of the above-suggested fields for legislation, with the exception of part-time education, are included in one general act, which is here reproduced. In the subsequent paragraphs the attention of each State is respectfully invited to those sections of this act with which it is immediately concerned.

SUGGESTIVE LEGISLATION FOR STATES—ALTERNATIVE I.

(An act to provide for the acceptance of the benefits of an act passed by the Senate and House of Representatives of the United States of America, in Congress assembled, to provide for the promotion of vocational education.)

The people of the State of _____, represented in senate and assembly, do enact as follows:

SECTION 1. The State of _____ hereby accepts all of the provisions and benefits of an act passed by the Senate and House of Representatives of the United States of America, in Congress assembled, entitled "An act to provide for the promotion of vocational education; to provide for cooperation with the States in the promotion of such education in agriculture and the trades and industries; to provide for cooperation with the States in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditure," approved February 23, 1917.

SEC. 2. The State treasurer is hereby constituted and appointed the custodian of the moneys paid to the State of _____ for vocational education under the provisions of such act, and such moneys shall be paid out in the manner provided by such act for the purpose therein specified.

SEC. 3. The _____ of the State of _____ is/are hereby designated as the State board for the purpose of carrying into effect the provisions of such act, and is/are hereby authorized and directed to cooperate with the Federal Board for Vocational Education in the administration and enforcement of its provisions, and to perform such official acts and exercise such powers as may be necessary to entitle the State to receive its benefits.

SEC. 4. The State board for vocational education shall have full power to represent the State in any and all matters in reference to the expenditure, distribution, and disbursements of funds received from the United States Government in said State and to appropriate and use said moneys in whatever way will in their discretion best subserve the interests of the State and carry out the spirit and intent of said act of Congress in conformity with its provisions.

SEC. 5. *Be it further enacted*, That such board is hereby authorized to make such expenditures for the actual expenses of the board for the salaries of assistants and for such office and other expenses as in the judgment of the board are necessary for the proper administration of this act; there is hereby appropriated out of any funds of the State treasury not otherwise appropriated the sum of \$_____ per annum for the actual expenses of said board for vocational education mentioned in this section.

SEC. 6. (A section providing the State board designated for vocational education with sufficient funds to at least match Federal teacher-training funds.) This section should be drawn so as to provide the State board designated for vocational education with an annual appropriation not less than the maximum which the State can receive for each ensuing year from the Federal funds for teacher training and authorizing the said State board to expend the sum appropriated exclusively for the training of teachers in accordance with the act of Congress. The source of the fund will vary among the various States. In some it may be obtained annually from unappropriated funds from the State treasury; in others by annual or biennial appropriation granted by the State legislature; and in others by the levy of a special tax.

SEC. 7. (A section providing the State board designated for vocational education with annual funds sufficient to at least match Federal funds received for salaries of teachers.) This section should be drawn so as to provide the State board designated for vocational education with an annual sum not less than the maximum which the State can receive from the Federal funds for each ensuing year for salaries of teachers of agricultural, trade and industrial, and home economics subjects, and also authorizing the said State board to disburse said fund to schools which may meet the requirements of the Smith-Hughes Act.

SEC. 8. (Section empowering the State board to certify teachers.) The State board designated for vocational education should be empowered to set up standard specifications for and to examine and duly certificate all teachers which may be employed in day, part-time, and evening schools for agriculture, trade and industry, and home economics which may receive Federal funds under the Smith-Hughes Act. It may be necessary in some of the States, in making operative the provisions of this section 8, to revise some of the statutes now in operation within the States for certifying teachers.

SEC. 9. All acts and parts of acts in conflict with this act are hereby repealed.

SEC. 10. This act shall take effect immediately.

SUGGESTIVE LEGISLATION FOR STATES—ALTERNATIVE II.

(An act to provide for the acceptance of an act of Congress approved February 23, 1917, to accept the benefits of all the respective funds therein designated; to designate the State treasurer as custodian of all moneys paid to the State from said funds; to (create) (designate) a State board to cooperate with the Federal Board created by said act; and to provide funds for the administration of said act.)

Be it enacted by the people of the State of _____ represented in senate and assembly: That the State of _____ hereby accepts, together with the benefits of all the respective funds appropriated thereby, all of the provisions of the act of Congress approved February 23, 1917, entitled "An act to provide for the promotion of vocational education; to provide for cooperation with the States in the promotion of such education in agriculture, the trades, and industries; to provide for the cooperation of the States in the preparation of teachers of vocational subjects; and to appropriate money and regulate its expenditure."

SEC. 2.¹ That the State treasurer is hereby designated and appointed custodian of all moneys received by the State from the appropriations made by said act of Congress, and he is hereby authorized and directed to receive and to provide for the proper custody of the same and to make disbursement thereof in the manner provided in the said act and for the purposes therein specified.

Form if board named by governor is to be continued as State board:

SEC. 3. That the board heretofore designated by the governor to cooperate with the Federal Board composed of _____ is hereby designated and continued as the State board for vocational education, and all acts performed by said board by virtue of its designation by the governor, as aforesaid, are hereby ratified and approved and are declared to be of the same force and effect as if performed under and by virtue of the designation herein made. The term of office of said board shall be for a period of four years, etc. That (a State board consisting of _____ is/are, hereby created (or) (the—insert name of board—) is/are, hereby designated as the State board for the purpose of carrying into effect the provisions of said act of Congress.²

SEC. 4. That the board hereby (designated) (created) shall have full and complete authority and power to cooperate with the Federal Board for vocational education, created by the act of Congress aforesaid, in the administration of the provisions of the said act and to do all things necessary to entitle the State to receive the benefits of each of the respective funds by said act appropriated; to represent the State in any and all matters arising out of or connected with the administration of said act of Congress, in so far as the same shall apply to this State; to represent the State in any or all matters in reference to the expenditure, distribution, and disbursements of moneys received from said act; to designate such schools, departments, or classes as may be entitled to participate in the benefits of moneys received from the appropriations made in said act as in its judgment and discretion will best subserve the interest of vocational education in the State and carry out the spirit, purposes, and provisions of the said act of Congress; to establish and determine, by general regulations, the qualifications to be possessed by persons teaching agricultural, trade, industrial, and home economics subjects in schools coming under the provisions of said act of Congress in the State, and to enforce rules and regulations concerning the granting of certificates and licenses to such teachers, and to duly certificate such teachers.³ The board shall make an annual report to the governor describing the conditions and progress of vocational education during the year, and including therein an itemized statement showing the receipts and expenditures of all moneys used in connection with such education.

¹ If the State passes sections 6 and 7 of the proposed acts (which set aside special State funds for teacher training or for salaries of teachers), this section (2) should be phrased so as to make the State treasurer the custodian of these funds also.

² Where the regular State board is designated to carry out the provisions of said act of Congress the State superintendent of public instruction or State commissioner of education, who is executive officer of the regular board, should also be designated in this section as the executive officer of the board.

³ A section might well be added giving board authority to also set up standards and license those who teach teacher-training classes.

SEC. 5. That the board herein (designated) (created) is hereby authorized to make such expenditures for the expenses of the board, for the salaries and expenses of assistants and supervisors, for office assistance and maintenance, including printing, and for such other expenses as in the judgment of the board are necessary for the proper administration of said act of Congress. For the purposes mentioned in this section, there is hereby appropriated for the use of said board out of any funds of the State treasury not otherwise appropriated the sum of \$_____ per annum.

SEC. 6. (State funds for teacher training.) This section should be drawn so as to provide the State board designated for vocational education with an annual appropriation not less than the maximum which the State can receive for each ensuing year from the Federal funds for teacher training and authorizing the said State board to expend the sum so appropriated exclusively for the training of teachers in accordance with the act of Congress. The source of the fund will vary among the various States. In some it may be obtained annually from unappropriated funds from the State treasury; in others by annual or biennial appropriation granted by the State legislature; and in others by the levy of a special tax.¹

SEC. 7. (State fund for salaries of teachers of agriculture, trade, industrial, and home economics subjects.) This section should be drawn so as to provide the State board designated for vocational education with an annual sum not less than the maximum which the State can receive from the Federal funds for each ensuing year for salaries of teachers of agricultural, trade and industrial, and home economics subjects, and also authorizing the said State board to disburse said fund to schools which may meet the requirements of the Smith-Hughes Act.

SEC. 8. (Empowering State board designated by legislature to certify teachers. This section (8) should not be enacted if section (4) above is enacted.) The State board designated for vocational education should be empowered to set up standard qualifications for and to examine and duly certificate teachers who may be employed in day, part-time, and evening schools for agriculture, trade, and industry, and home economics which may receive Federal funds under the Smith-Hughes Act. It may be necessary in some of the States, in making operative the provisions of this section (8) to revise some of the statutes now in operation within the States for certifying teachers.

SEC. 9. That all laws and parts of laws in conflict herewith are hereby repealed.

SEC. 10. That this act shall take effect upon its passage and approval by the governor.

APPENDIX E.

EXECUTIVE OFFICERS, MEMBERSHIP, DIRECTORS, AND SUPERVISORS OF STATE BOARDS FOR VOCATIONAL EDUCATION.

ALABAMA.

Executive officer: Spright Dowell, State superintendent of public instruction, Montgomery.

Membership of State board: Spright Dowell, State superintendent of education; T. W. Palmer, president Alabama Girls' Technical School; J. J. Doster, professor, secondary education; Zebulon Judd, principal of secondary education; E. M. Wright, normal school; C. A. Brown, principal, high school; J. Alex. Moore, principal, high school.

State director: None.

State supervisors for agricultural education: J. B. Hobdy (whites), James L. Sibley (negroes).

State supervisor for home-economics education: Martha Patterson, Montevallo.

State supervisor for trade and industrial education: James L. Sibley.

¹ A section might well be added giving board authority to also set up standards and license those who teach teacher-training classes.

ARIZONA.

Executive officer: C. O. Case, State superintendent of public instruction, Phoenix.

Membership of State board: C. O. Case, State superintendent of public instruction; Hon. G. W. P. Hunt, governor; Dr. R. B. Von Kleinsmid, president University of Arizona; A. J. Matthews, president Tempe State Normal; Dr. R. H. H. Blome, president Northern Arizona Normal; John D. Loper, city school superintendent; J. W. Brown, county school superintendent; G. E. Cornelius, high-school principal.

State director: I. Coloduy.

ARKANSAS.

Executive officer: J. L. Bond, State superintendent of public instruction, Little Rock.

Membership of State board: J. L. Bond, State superintendent; Jack Bernhardt, lawyer; D. A. Bradham, lawyer; L. P. Anderson, teacher; Sidney Pickens, teacher; J. C. Futrall, president University of Arkansas; J. W. Kuykendall, business man; B. W. Torreyson, president State Normal School.

State director: A. B. Hill.

State supervisor for agricultural education: N. M. Whaley.

State supervisor for home-economics education: Connie Bonslagel.

CALIFORNIA.

Executive officer: E. R. Snyder, commissioner of vocational education.

Membership of State board: E. P. Clarke, editor and publisher; Charles A. Whitmore, editor and publisher; George W. Stone, retired minister, bank inspector, mayor; Mrs. O. S. Barnum, housewife; Mrs. Agnes Ray, housewife.

State director and supervisor for trade and industrial education: E. R. Snyder.

State supervisor for agricultural education: J. B. Lillard.

State supervisor for home economics education: Maud I. Murchie.

COLORADO.

Executive officer: A. A. Edwards, president State board of agriculture, Fort Collins.

Membership of State board: A. A. Edwards, retired; Charles Pearson, farmer; R. W. Corwin, surgeon; H. D. Parker, farmer and banker; Mrs. Agnes L. Riddle, farmer and State senator; J. C. Bell, lawyer and farmer; E. M. Ammons, president Farmers' Insurance Co., and farmer; J. C. Gunter, lawyer and farmer; Charles A. Lory, president State Agricultural College; J. S. Calkins, farmer.

State director: C. G. Sargent.

CONNECTICUT.

Executive officer: Charles D. Hine, secretary State board of education, Hartford.

Membership of State board: Marcus H. Holcomb, governor and lawyer; Clifford B. Wilson, lieutenant governor and lawyer; Charles F. Smith, manufacturer; Howell Cheney, manufacturer; Edward D. Robbins, lawyer; Dr. John G. Stanton, physician; Schuyler Merrett, manufacturer and Member of Congress; Charles D. Hine, teacher (connected with board, but not a member); Henry C. Morrison (connected with board, but not a member); Frederick J. Trinder, engineer (connected with board, but not a member).

State director for industrial education: Frederick J. Trinder.

State director for agricultural education: H. C. Morrison.

State supervisor for agricultural education: T. H. Eaton.

State supervisors for trade and industrial education: James C. Tucker, Augustus S. Boynton, Everett D. Packard, Herbert J. Hanson, George W. Buck, Herbert H. Wilber, William C. Holden, F. C. Lawrence, J. J. O'Donnell.

DELAWARE.

Executive officer: A. R. Spaid, commissioner of education, Dover.

Membership of State board: C. J. Scott, superintendent of public schools; Harry Hayward, dean of agriculture; Dr. S. C. Mitchell, president Delaware College; Frederick Brady, business; Albert Worth, lawyer; Frank B. Sirman, business; Charles H. Le Fevre, lawyer; A. R. Spaid, commissioner of education (not a member of the State board).

State director: None.

State supervisor for agricultural education: L. C. Armstrong.

FLORIDA.

Executive officer: W. N. Sheats, State superintendent of public instruction, Tallahassee.

Membership of State board: W. N. Sheats, State superintendent of public instruction; Sidney J. Catts, governor; J. C. Luning, State treasurer; H. Clay Crawford, secretary of state; Van C. Swearingen, attorney general.

State director: W. N. Sheats.

State supervisors for agricultural education: S. Philips, Williston; R. S. Turner, Inverness.

State supervisor for home economics education: Edith M. Thomas.

GEORGIA.

Executive officer: M. L. Brittain, State superintendent of schools, Atlanta.

Membership of State board: M. L. Brittain, State superintendent; D. C. Barrow, chancellor, University of Georgia; Dudley M. Hughes, ex-Congressman and planter; B. H. Hardy, editor; Sam Tate, manufacturer and planter; J. Randolph Anderson, ex-president Georgia Senate and lawyer; Ross Copeland, plumber and lawyer.

State director: M. L. Brittain.

State supervisor for agricultural education: Robert D. Maltby.

State supervisors for home-economics education: Julia Robertson, Valdosta; Edna M. Randall, Athens; Eda A. Lord, Milledgeville.

IDAHO.

Executive officer: E. A. Bryan, commissioner of education, Boise.

Membership of State board: Evan Evans, capitalist; Ramsay M. Walker, banker; J. A. Keefer, banker; J. A. Lippincott, merchant; William Healy, lawyer; Ethel E. Redfield, State superintendent of public instruction.

State director: E. A. Bryan.

State supervisor for agricultural education: C. B. Wilson, Moscow.

State supervisor for home-economics education: Amy Kelley.

ILLINOIS.

Executive officer: F. G. Blair, State superintendent of public instruction, Springfield.

Membership of State board: William H. Boys, director of trade and commerce; Barney Cohen, director of labor; Charles Adkins, director of agriculture; Francis G. Blair, superintendent of public instruction; F. W. Shepardson, director of registration and education.

State director: None.

State supervisor for agricultural education: A. W. Nolan, Urbana.

State supervisor for trade and industrial education: E. A. Wreidt.

State supervisor for home-economics education: Cora I. Davis.

INDIANA.

Executive officer: Horace Ellis, State superintendent of public instruction, Indianapolis.

Membership of State board: W. L. Bryan, president Indiana University; W. E. Stone, president Purdue University; W. W. Parsons, president State Normal; E. U. Graff, superintendent of schools; R. W. Himelick, superintendent of schools; L. P. Benezet, superintendent of schools; C. O. Williams, county superintendent; S. L. Scott, county superintendent; H. G. Brown, city superintendent of schools; A. M. Hall, manufacturer; Frank Duffy, carpenter; George R. Gross, president De Pauw; Horace Ellis, State superintendent.

State director: J. G. Collicott.

State supervisor for agricultural education: Z. M. Smith.

State supervisor for home-economics education: Bertha Latta.

IOWA.

Executive officer: A. M. Deyoe, State superintendent of public instruction, Des Moines.

Membership of State board: A. M. Deyoe, superintendent of public instruction; D. D. Murphy, lawyer; A. L. Urich, cigar maker.

State director and supervisor for agricultural education: Wilbur H. Bender.

KANSAS.

Executive officer: W. D. Ross, State superintendent of public instruction, Topeka.

Membership of State board: W. D. Ross, State superintendent; Frank Strong, chancellor university; T. W. Butcher, president normal school; Lillian Scott, dean Baker University; H. W. Shideler, editor; W. O. Steen, city superintendent; W. M. Jardine, president Agricultural College.

State director and supervisor for agricultural education: H. L. Kent.

KENTUCKY.

Executive officer: V. O. Gilbert, State superintendent of public instruction, Frankfort.

Membership of State board: V. O. Gilbert, State superintendent; J. P. Lewis, secretary of state; C. H. Morris, attorney general; O. L. Reid, superintendent of schools; C. H. Ellis, banker; N. L. McVey, president State University.

State director and State supervisor for agricultural education: J. McHenry Rhodes.

State supervisor for trade and industrial and home-economics education: O. L. Reid.

LOUISIANA.

Executive officer: T. H. Harris, State superintendent of public instruction, Baton Rouge.

Membership of State board: E. L. Kidd, insurance; John Legier, jr., banker; Dr. John A. Haas, doctor; Robert Martin, lawyer; T. H. Harris superintendent of education; R. S. Thornton, lawyer.

State director: None.

State supervisor for agricultural education: P. L. Guillebeau.

State supervisor for home-economics education: Cleora Helbing.

MAINE.

Executive officer: A. O. Thomas, State superintendent of public instruction, Augusta.

Membership of State board: A. O. Thomas, State superintendent of public instruction; W. S. Newell, manufacturer; C. S. Stetson, farmer.

State director and supervisor for trade and industrial education: Paul H. Smiley (on leave of absence).

State supervisor for agricultural education: Herbert S. Hill.

State supervisor for home-economics education: Bernardine Cooney.

MARYLAND.

Executive officer: M. Bates Stephens, State superintendent of public instruction, McCoy Hall, Baltimore.

Membership of State board: J. A. Pierce, ex-judge; W. T. Warburton, lawyer; T. H. Bock, manufacturer; T. H. Lewis, president of college and minister; Clayton Purnell, lawyer; Sterling Galt, publisher.

State director: G. H. Reavis.

State supervisor for agricultural education: H. F. Cotterman.

State supervisor for trade and industrial education: L. A. Emerson.

State supervisor for home-economics education: Agnes Saunders.

MASSACHUSETTS.

Executive officer: Payson Smith, State commissioner of education, Boston.

Membership of State board: F. P. Fish, lawyer; S. L. Arnold, educator; Mrs. E. L. Cabot, author; A. L. Filene, merchant; Thomas B. Fitzpatrick, merchant; F. W. Hamilton, minister; P. H. Hanus, educator; H. B. Moses, manufacturer; S. L. Powers, lawyer; Payson Smith, commissioner of education; W. V. McDuffee, teacher.

State director: R. O. Small.

State supervisor for trade and industrial education—teacher training: Charles R. Allen.

State supervisor for trade and industrial education: Chester L. Pepper.

State supervisor for agricultural education: Rufus W. Stimson.

State supervisor for home-economics education—teacher training: Louisa I. Pryor.

State supervisor for home-economics education: Caroline E. Nourse.

State supervisors of teacher training: M. Norcross Stratton, Franklin E. Heald, Anna A. Kloss, Anna P. Hanrahan.

MICHIGAN.

Executive officer: Fred L. Keeler, State superintendent of public instruction, Lansing.

Membership of State board: H. B. Hutchins, president University of Michigan; F. S. Kedzie, president Michigan College of Agriculture; Frank Cody, president State board of education; Fred L. Keeler, superintendent of public instruction.

State director: None.

State supervisor for agricultural education: Walter H. French.

State supervisor for trade and industrial education: George E. Myers.

State supervisor for home economics: Martha H. French.

MINNESOTA.

Executive officer: C. G. Schulz, State superintendent of education, St. Paul.

Membership of State board: Eli Torrance, lawyer; C. G. Schulz, State superintendent; M. L. Burton, president University of Minnesota; George B. Aiton, banker; John Munroe, superintendent of schools.

State director: E. M. Phillips.

State supervisor for agricultural education: B. M. Gile.

State supervisor for trade and industrial education: G. A. McGarvey.

MISSISSIPPI.

Executive officer: W. F. Bond, State superintendent of public instruction, Jackson.

Membership of State board: W. F. Bond, State superintendent; J. R. Calhoun, rural school supervisor; J. W. Broom, assistant State superintendent of education; Bura Hilbun, supervisor of negro schools; D. C. Hull, superintendent of schools.

State director and supervisor for agricultural education: F. J. Hubbard.

State supervisor for agricultural education: S. J. Greer.

MISSOURI.

Executive officer: Uel W. Lamkin, State superintendent of public instruction, Jefferson City.

Membership of State board: Uel W. Lamkin, teacher; F. D. Gardner, governor and manufacturer; Frank W. McAllister, lawyer; John Sullivan, abstractor.

State director and supervisor for agricultural education: J. D. Elliff.

MONTANA.

Executive officer: Miss May Trumper, State superintendent of public instruction, Helena.

Membership of State board: S. V. Stewart, governor; S. C. Ford, attorney general; May Trumper, State superintendent; C. H. Hall, attorney; J. Bruce Kremer, attorney; Leo H. Foust, editor; Ward N. Nye, superintendent; W. S. Hartman, attorney; C. E. K. Vidal, physician; I. Dietrich, superintendent; A. L. Stone, banker.

State director: None.

State supervisor for agricultural education: M. J. Abbey.

State supervisor for trade and industrial education: L. R. Foote.

State supervisor for home economics education: Lucile Reynolds.

NEBRASKA.

Executive officer: W. H. Clemmons, State superintendent of public instruction, Lincoln.

Membership of State board: Keith Neville, governor; George E. Hall, State treasurer; W. H. Clemmons, State superintendent.

State director: C. A. Fuhner.

State supervisor for agricultural education: C. W. Watson.

State supervisor for home economics education: Leta Linch.

NEVADA.

Executive officer: John Edwards Bray, State superintendent of public instruction, Carson City.

Membership of State board: Emmett D. Boyle, governor, mining engineer; Walter E. Clark, educator; John Edwards Bray, educator.

State director: Leslie E. Brigham.

NEW HAMPSHIRE.

Executive officer: E. W. Butterfield, State superintendent of public instruction, Concord.

Membership of State board: H. W. Keyes, governor; R. D. Hetzel, president State College; E. W. Butterfield, State superintendent; S. H. Abbott, farmer; O. B. Brown, manufacturer.

State director: G. H. Whitcher, Concord.

NEW JERSEY.

Executive officer: Calvin N. Kendall, commissioner of education, Trenton.

Membership of State board: Melvin A. Rice, business and farmer; John C. Van Dyke, college professor; D. Stewart Craven, manufacturer and farmer; John P. Murray, lawyer; Thomas W. Synnott, business; Ernest R. Ackerman, manufacturer; Robert Lynn Cox, lawyer; O. W. Jeffery, lawyer.

State director: W. A. O'Leary, Trenton.

State supervisor for agricultural education: A. K. Getman, New Brunswick.

State supervisor for home-economics education: Iris Prouty O'Leary.

State supervisor for trade and industrial education: R. W. Burnham.

NEW MEXICO.

Executive officer: J. H. Wagner, State superintendent of public instruction, Santa Fe.

Membership of State board: W. E. Lindsey, governor; J. H. Wagner, State superintendent; E. L. Enloe, president Normal School; Frank Carroon, dean Normal University; Atansio Montoya, county superintendent; Mrs. Josie Lockard, teacher; A. D. Crile, president College of Agriculture.

State director: Mrs. Ruth C. Miller.

State supervisor for agricultural education: E. D. Smith.

NEW YORK.

Executive officer: John H. Finley, State commissioner of education, Albany.

Membership of State board: P. T. Sexton, banker and lawyer; A. Vander Verr, physician; Chester S. Lord, editor; William Nottingham, lawyer; Francis Carpenter, lawyer; Abram I. Elkus, lawyer; Adelbert Moot, lawyer; Charles B. Alexander, lawyer; John Moore, editor; Walter G. Kellogg, lawyer; James Byrne, lawyer; Herbert L. Bridgeman, editor.

State director and supervisor for trade and industrial education: L. A. Wilson.

State supervisors for agricultural education: C. E. Ladd, Arthur Williams.

State supervisor for home-economics education: Marion E. Van Lieu.

State supervisor for trade and industrial education—teacher training: R. B. Farnum.

NORTH CAROLINA.

Executive officer: J. Y. Joyner, State superintendent of public instruction, Raleigh.

Membership of State board: J. Y. Joyner, superintendent of public instruction; W. C. Riddick, president State College of Agriculture; B. W. Kilgore, State chemist.

State director and supervisor for agricultural education: T. E. Browne.

State supervisor for home-economics education: Miss Minnie L. Jamison, Greensboro.

NORTH DAKOTA.

Executive officer: N. C. Macdonald, State superintendent of public instruction, Bismarck.

Membership of State board: N. C. Macdonald, educator; E. F. Ladd, educator; E. R. Edwards, educator; Edward Erickson, educator; A. G. Crane, educator; Fred W. Smith, education; C. E. Cavett, educator; A. A. Whittemore, educator; Thomas Kane, president University.

State director: None.

State supervisor for home economics education: Katherine Jensen, University.

OHIO.

Executive officer: F. B. Pearson, State superintendent of public instruction, Columbus.

Membership of State board: S. J. McCune, merchant; W. S. Edmund, city superintendent of schools; Mrs. K. W. Hughes; W. H. Winans, employment manager; Alfred Vivian, dean of College of Agriculture; F. B. Pearson, superintendent of public instruction; R. J. Condon, superintendent of schools.

State director and State supervisor for trade and industrial education: W. F. Shaw.

State supervisor for agricultural education: W. F. Stewart.

State supervisor for home economics education: Mrs. Maude Gregory Adams.

OKLAHOMA.

Executive officer: S. M. Barrett, secretary, State board of education, Oklahoma City.

Membership of State board: J. W. Cantwell, teacher; Frank M. Gault, farmer; Stratton D. Brooks, teacher; R. H. Wilson, teacher; S. M. Barrett, teacher.

State director: S. M. Barrett.

State supervisor for agricultural education: William R. Curry.

State supervisor for home economics education: Avis Gwinn.

OREGON.

Executive officer: J. A. Churchill, State superintendent of public instruction, Salem.

Membership of State board: J. A. Churchill, superintendent of public instruction; Mrs. Maida K. McMath, president Oregon Congress of Mothers; Mrs. Charles Castner, president Federation of Women's Clubs; E. J. Stack, secretary Oregon Federation of Labor; David M. Dunne, merchant.

State director: None.

State supervisor for agricultural education: H. P. Barrows, Corvallis.

State supervisor for industrial education and assistant director: F. H. Shepherd (absent on leave); E. D. Ressler, Corvallis.

State supervisor for home economics education: Bertha Davis, Ava B. Milam (absent on leave), Corvallis.

PENNSYLVANIA.

Executive officer: Nathan C. Schaeffer, State superintendent of public instruction, Harrisburg.

Membership of State board: N. C. Schaeffer, State superintendent of schools; William Lauder, secretary of industrial board; J. P. Garber, superintendent of schools; Marcus Aaron, manufacturer; E. S. Templeton, lawyer; Robert C. Shaw, superintendent of schools.

State director for agricultural education: L. H. Dennis.

State director for trade and industrial education: Millard B. King.

State supervisors for agricultural education: H. C. Fetterolf, J. K. Bowman.

State supervisors for trade and industrial education: W. P. Loomis, W. E. Hackett.

State supervisors for home economics education: Anne Perry Zink, Mrs. Anna G. Green.

RHODE ISLAND.

Executive officer: Walter E. Ranger, commissioner of public schools, Providence.

Membership of State board: R. Livingston Beeckman, retired broker; Emery J. San Souci, merchant; George T. Baker, banker; Joseph R. Bourgeois, clergyman; E. Charles Francis, banker; Frank Hill, banker; Frederick Rueckert, attorney; Frank E. Thompson, educator; Walter E. Ranger, educator.

State director: None.

State supervisors: None.

SOUTH CAROLINA.

Executive officer: J. E. Swearingen, State superintendent of public instruction, Columbia.

Membership of State board: Gov. E. I. Manning, farmer and banker; Supt. J. E. Swearingen, educator; J. N. Nathans, attorney at law; W. Jay McGarity, educator; S. J. Derrick, educator; H. N. Snyder, educator; E. A. Montgomery, educator; W. L. Brooker, educator; S. H. Edmunds, educator.

State director: None.

State supervisor for agricultural education: Verd Peterson, Clemson College.

State supervisor for home economics education: Edna F. Coith, Rockhill.

SOUTH DAKOTA.

Executive officer: C. H. Lugg, State superintendent of public instruction, Pierre.

Membership of State board: C. H. Lugg, State superintendent of public instruction; Robert L. Slagle, president University of South Dakota; Ellwood C. Perisho, president South Dakota Agricultural and Mechanical College; Willis E. Johnson, president normal school; J. W. Heston, president State normal School; Adella S. Beach, county superintendent; Grace Reed-Porter, principal of high school.

State director: None.

State supervisor for agricultural education: E. D. Stivers.

State supervisor for trade and industrial education: M. W. Heckman.

State supervisor for home economics: Eva R. Robinson.

TENNESSEE.

Executive officer: P. L. Harned, State board of education, Clarksville, Tenn.

Membership of State board: P. L. Harned, postmaster; J. F. Fowlkes, farmer; L. A. Ligon, lawyer; C. C. Hanson, business man; J. H. Bayer, educator; C. B. Ijams, educator; W. L. Gentry, educator; M. H. Gamble, lawyer; J. S. Zeigler, educator; S. W. Sherrill, State superintendent.

State director: Albert Williams.

TEXAS.

Executive officer: W. F. Doughty, State superintendent of public instruction, Austin.

Membership of State board: W. B. Hobby, governor; H. B. Terrell, comptroller and editor; G. F. Howard, secretary of state and lawyer.

State director for agricultural education: J. D. Blackwell.

State director for trade and industrial education: N. S. Hunsdon.

State director for home economics education: Nina B. Crigler.

UTAH.

Executive officer: E. G. Gowans, State superintendent of public instruction, Salt Lake City.

Membership of State board: E. G. Gowans, superintendent of public instruction; J. A. Widtsoe, president, University of Utah; E. G. Peterson, president, A. C. U.; G. N. Child, assistant superintendent of schools; G. A. Eaton, high school supervisor; Roy F. Homer, principal Branch agricultural college; Matilda Peterson, principal supervisor; J. C. Swenson, teacher.

State director: F. W. Kirkham.

State supervisor for agricultural education: I. B. Ball.

State supervisor for home economics education: Jean Cox.

VERMONT.

Executive officer: Milo B. Hillegas, commissioner of education, Montpelier.

Membership of State board: James Hartness, machinist; Frank H. Brooks, manufacturer; Arthur Hewitt, clergyman; Luther Johnston, publisher; M. C. Webber, lawyer.

State director: None.

State supervisor for agricultural education: Heber H. Gibson.

State supervisor for home economics education: Julia Hurd.

State supervisor for trade and industrial education: L. H. Beach.

VIRGINIA.

Executive officer: Harris Hart, State superintendent of public instruction, Richmond.

Membership of State board: Hon. Westmoreland Davis, governor; John R. Sanders, attorney general; Harris Hart, State superintendent; Henry C. Ford, professor; Dr. James S. Wilson, professor; Dr. J. A. C. Chandler, superintendent; Supt. B. E. Copenhaver, superintendent; W. R. Smithey, secretary State board.

State director: None.

State supervisor for agricultural education: Thomas D. Eason.

WASHINGTON.

Executive officer: Mrs. Josephine Corliss Preston, State superintendent of public instruction, Olympia.

Membership of State board: Mrs. J. C. Preston, State superintendent of public instruction; Dr. Henry Suzzallo, president university; Dr. E. O. Holland, president State college; W. F. Geiger, city superintendent; H. M. Hart, principal high school; George W. Nash, president normal school; Miss Georgiana Donald, county superintendent.

State director and State supervisor for trade and industrial education: C. R. Frazier, 418 County City Building, Seattle.
 State supervisor for agricultural education: H. M. Skidmore, Pullman.

WEST VIRGINIA.

Executive officer: J. F. Marsh, secretary State board of regents, Charleston.
 Membership of State board: M. P. Shawkey, State superintendent; F. N. Sycamore, lawyer, for many years a teacher; E. W. Oglebay, scientific farmer, manufacturer, and banker; N. G. Keim, insurance, timber, and real estate; George S. Laidley, city superintendent of schools.
 State director: None; J. F. Marsh, acting director.
 State supervisors for agricultural education: C. H. Winkler and P. C. Rouzer.
 State supervisors for home economics education: Rachel H. Colwell and Mary B. Oliver.

WISCONSIN.

Executive officer: John Callahan, executive secretary, Madison.
 Membership of State board: E. W. Schultz, manufacturer; R. S. Cooper, manufacturer; E. J. Kearney, manufacturer; A. W. McTaggart, employee; J. H. McQuaid, employee; Oliver Ellsworth, printer; C. E. Hanson, farmer; George F. Comings, farmer; M. L. Hineman, farmer; C. P. Cary, State superintendent of schools; Thomas F. Konop, member industrial commission.
 State director: John Callahan.
 State supervisor for agricultural education: W. S. Welles, River Falls.
 State supervisors for trade and industrial education: W. F. Faulkes, E. E. Gunn, jr., A. R. Graham,

WYOMING.

Executive officer: J. O. Creager, secretary State board of education, Cheyenne.
 Membership of State board: Mrs. W. S. Metz, wife of attorney; S. A. Huston, minister; D. B. Atkinson, president Jireh College; Richard May, Great Western Sugar Co.; S. C. Parks, banker; B. J. Quealy, manager Kemmerer Coal Co.; Edith K. O. Clark, State superintendent of public instruction.
 State director and supervisor for agricultural education; J. R. Coxen, Laramie.

